TIDE TABLES

FOR THE

PACIFIC COAST OF CANADA

FOR THE YEAR

1921

Including Fuca Strait, the Strait of Georgia, and the Northern Coast.

With data for Slack Water in the navigable Passes and

Narrows and Information on Currents.

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Naval Service of the Dominion of Canada
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W. BELL DAWSON, M.A., D.Sc., M.Inst.C.E., F.R.S.C., Superintendent.

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TIDE TABLES

FOR THE

PACIFIC COAST OF CANADA

FOR 1921.

These Tide Tables are issued by the Tidal and Current Survey, in the Department of the Naval Service of the Dominion of Canada. They are based upon observation of the tides, obtained from self-registering tide gauges, which are kept in continuous operation day and night throughout the year. The record thus secured is reduced by the latest methods of harmonic analysis, by which the Tidal Constants are arrived at; and from these the six principal tide tables are calculated.

The Tide Tables for CLAYOQUOT are based upon tidal record during eleven complete years. This tidal station is situated at Tofino, just within the entrance of

the sound.

The Tide Tables for Victoria are based upon tidal record during twelve complete years. At this port, the high and low waters of the same day are often very unequal; and at times there is only one high water and one low water in the day, as the tide may rise or fall continuously during two successive tidal periods without turning.

The Tide Tables for SAND HEADS, are based on six complete years of tidal record, obtained between 1895 and 1904, at the lighthouse formerly situated off the main outlet of the Fraser river; together with four additional years of tidal record at a bay near Point Atkinson. The tide is practically identical at these two stations, as they are both centrally situated in the Strait of Georgia.

The Tide Tables for VANCOUVER are based upon tidal record during twelve

complete years.

The Tide Tables for Port Simpson are based upon tidal record during ten complete years. This is the best port of reference for the tide at all points from Vancouver island northward as well as for the calculation of the time of Slack Water in the northern passes and narrows.

The Tide Tables for PRINCE RUPERT are based upon record during ten complete

In those Tide Tables in which the tides are placed in their order of occurrence, a comparison of the heights of the successive tides will show which is High Water and which is Low Water.

The Tidal Differences for other places are given on the following pages; with an explanation of their relation to the ports of reference for which full tide tables are

The Tables of Slack Water for First Narrows, Active Pass and Porlier Pass are based on observations for periods of two to three years. These tables are calculated from a series of differences with the time of the tide, with allowance for their variations, as explained at the beginning of the Slack Water tables. Also, the relation of one pass to another may be more constant than the relation with the time of the tide; and this enables other passes and narrows to be referred by a difference of time to those for which full tables are given.

The tables of Slack Water for Seymour narrows are based upon observations during the greater part of the years 1897, 1910 and 1913. The differences of time for Slack Water in the other narrows and tidal rapids in that region, are given in a table

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ACCURACY OF THE TIDE TABLES.—As the accuracy of tide tables is represented by the length of the tidal observations on which they are based, those for all the six principal ports, mentioned above, are now superior to the tide tables for any port on the Pacific ocean, in America, Asia or Australia.

W. BELL DAWSON, Superintendent of Tidal Surveys.

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TIDAL DIFFERENCES FOR TIME.

To obtain correct results with Tidal Differences, the coast must be divided into regions which correspond with the various types of the tide; with a Port of Reference

in each region, for which Tide Tables are published.

The extent of the region that can best be referred to each port of reference, has now been carefully ascertained, and the limits between them determined. The time of the tide at the various localities can thus be deduced from the Tide Tables by means of the Tidal Differences indicated in the lists which follow.

The tide changes rapidly in character in its progress up Fuca strait and among the Gulf islands, and the special features of the Strait of Georgia are there developed. The region that can be referred to Victoria is thus limited to Fuca and Haro straits; and even in this limited area, the tidal differences are very variable for the Half Tides,

as they are often obscure, and at times effaced.

The Gulf islands form a complex area in which the type of the tide is in a transition state, but the Half Tides are again well marked. It has been found possible to refer this region to Sand Heads, though this result is sometimes arrived at indirectly, by making use of a secondary port of reference.

As Vancouver harbour is inside Burrard inlet, the localities which can be referred to it are limited to the inlet itself. The open side of the city, on English bay and False

creek, goes with the Strait of Georgia, and is referred to Sand Heads.

All localities in the Strait of Georgia can be referred to Sand Heads, as far north as a cross line indicated by Seymour narrows, Surge narrows and the Yuculta, in the

various channels; and thence to the head of Bute inlet.

The network of channels and inlets opposite the northern end of Vancouver island, is very complex; and as high water to the north is practically simultaneous with low water to the south, and vice versa, the time of the tide changes rapidly. A series of tidal differences along the main channel next to Vancouver island, is given as a basis for this area, as well as at some localities among these channels, where observations have been obtained. The Half Tides are still a marked feature as far as Queen Charlotte sound.

The whole of the open coast of British Columbia, from Vancouver island northward, can be referred satisfactorily to Port Simpson; as well as the east and north coasts of the Queen Charlotte islands, where all the important harbours of those

islands are situated.

HEIGHT AND RATIO.

The rise of the tide at Springs and Neaps is given for the open coast of the Pacific, where these can be distinguished. For other regions, the mean rise and a ratio are given; as the diurnal inequality is there so dominant as to obscure all other features

in the tide.

The "Mean Rise" is the average height of High Water above a Low-water datum in each locality which corresponds correctly with the datum at the Port of Reference. Thus for example, the datum levels at the localities throughout the Strait of Georgia, have been brought into correspondence with the datum in the Sand Heads tide tables; and north of Seymour narrows, they correspond with the datum at Port Simpson.

The "Ratio" indicates the height of High Water and the Half Tides in proportion to the Reference station. It may best be understood as a percentage; thus $1 \cdot 14$ means that the rise is 14 per cent greater, and $0 \cdot 96$ that it is 96 per cent as much. By applying this percentage to the height in the Tide Tables for the Reference station,

the local height will be obtained.

In Baynes sound, the Chart datum is lower than the corresponding datum at Sand Heads. To find the rise above the Chart datum, apply the ratio for Union to the height at Sand Heads, and add $2 \cdot 0$ feet.

TIDAL DIFFERENCES, to be applied to the Tide Tables named under Port of Reference. All results are in Pacific Standard time for the 120th Meridian west of Greenwich.

			1 1			
	1		-			
A STATE OF THE PARTY OF THE PAR			For	For	Rise of	Tide.
Locality.	Port of R	eference.	H.W.	L.W.	~ .	ise
	12 14 14				Springs.	Neaps
West coast, Vancouver island			м.	M.	Feet.	Feet
Quatsino sound	Clayoquot.		Add 12	Add 14	11	8
Klaskish inlet.	1		" 06	" 08	11	8
Nasparte inlet			" 06	" 08	12	9
Kyuquot sound			" 04	" 05	12	9
Esperanza inlet			" 04	" 05	12	9
Nootka sound.	1		" 02	" 03	12	9
Hesquiat harbour			" 02	" 03	11	8
CLAYOQUOT. (See Tide Tables)			" 00	" 00	11	8
Ucluelet			Sub 10	Sub 08	11	8
Barkley sound. At Bamfield	1		" 13	" 10	11	8
Port Alberni			" 04	" 09	101	8
Carmanah point.			" 0	" 03	10	73
Port Renfrew. In San Juan bay			Add 05	Add 01	9	7
L OZ O Z OZ		**********	1144 00	1144 01		
	1		1			
	Port	For	For	For	Height of	Tide.
Locality	of	Higher	Lower	Half		
	Reference.	H.W.	L.W.	Tides.	Mean Rise	Ratio.
Strait of Fuca, Etc.		H.M.	H.M.	H.M.	Feet.	
Sooke, Vancouver island	Victoria	Sub.0:19	Sub.0:26	(Var.)	8.7	1.06
Esquimalt " "		Add 0:12	Add 0:17	Add 0:17	8.3	1.01
VICTORIA. (See Tide Tables)	"	" 0:00	" 0:00	" 0:00	8.2	1.00
Sidney, Head of Haro strait	"	" 2:00	" 1:24	" 1:50	9.3	1.13
						1 100
Gulf Islands, off the Strait of Georgia		M.	M.	M.		-
Deep cove, Saanich peninsula	Sand Heads	Sub. 15	Sub. 45	Sub. 40	9.5	0.81
Tod inlet, Saanich arm		" 14	" 35	" 32	9.7	0.82
Cowichan bay	66 66	" 16	" 36	" 33	10.0	0.84
Fulford harbour.	" "	" 13	" 32	" 31	9.8	0.82
South Pender. (Bedwell harbour)		" 14	" 45	" 35	9.4	0.80
Hope bay, North Pender island	" "	" 06	" 28	" 27	10.1	0.85
Ganges harbour. Saltspring island		" 12	" 32	" 30	9.8	0.83
Telegraph harbour. Kuper island		" 18	" 30	" 20	10.2	0.86
Chemainus, Ladysmith and Osborn bay	" "	" 18	" 30	" 20	10.2	0.86
Dodd narrows* and Percy anchorage	"	" 02	" 12	" 02	12.6	1.06
Gabriola pass.* Between Gulf islands	66 66	" 13	" 24	" 14	11.8	1.00
Porlier pass.* Between Gulf islands	" "	" 24	" 18	" 07	11.4	0.96
Mayne. In Active pass		Add 06	" 03	" 01	11.2	0.94
				Fundament !		1000
Strait of Georgia.	11 3 3				-	
Port Moody. Head of Burrard inlet	Vancouver	Add 13	Add 24	Add 14	11.9	1.04
North Arm of Burrard inlet	"	" 13	" 25	" 15	12.0	1.04
VANCOUVER. (See Tide Tables)	"	" 00	" 00	" 00	11.7	1.00
English bay. (Simultaneous with Sand Heads).	Sand Heads				12.0	0.99
False creek. At Vancouver		" 06	" 09	" 07	12.1	1.01
	-					

^{*} For the time of Slack Water, see tables for these passes, or the table of differences on page 64.

TIDAL DIFFERENCES, to be applied to the Tide Tables named under Port of Reference. All results are in Pacific Standard time for the 120th Meridian west of Greenwich.

Locality.	Port	1	or gher	1	or wer	1	or	Height of	Tide.
	Reference.	1	.W.	L.	.W.	1	des.	Mean Rise	Ratio
					-				
Strait of Georgia—Continued.			M.	Bus	M.		M.	Feet.	
New Westminster. (See special tables, page 8)	Sand Heads							$5\frac{1}{2}$	0.45
Port Coquitlam, Haney and Sumas. (See p. 8)	66 66							4 to 1	(Var.)
SAND HEADS and Point Atkinson	66 66	Add	1 00	Add	00 E	Add	1 00	12.1	1.00
Bowen island	66 66	66	02	66	04	Sub	. 01	12.2	1.03
Squamish. Head of Howe sound	"	66	06	66	07	Add	1 05	12.4	1.04
Seechelt	66 66	66	04	66	05	66	02	12.3	1.04
Nanaimo	66 66	66	07	Sub	. 02	46	03	12.8	1.08
Departure bay	66 66	Sub	. 01	46	10	Sub	. 01	12.5	1.05
Hammond bay	66 66	66	00	66	10	46	01	12.2	1.03
Nanoose	66 66	Ado	1 02	66	07	Add	1 04	12.5	1.05
Hornby island	66 66	66	03	Add	1 01	66	04	12.7	1.07
Union. On Baynes sound	66 . 66	- 66	03	. 66	01	66	04	13.2	1.12
Comox. (Port Augusta)	66 66	66	04	"	02	66	05	13.3	1.12
Vananda, Texada island	66 66	66	08	66	10	66	05	12.7	1.07
Powell river	££ ££	66	10	66	14	66	05	13.1	1.11
Lund and Savary island	ec ec	66	14	66	16	66	08	13.6	1.14
Baker passage	66 66	66	16	66	18	66	10	13.6	1.14
Whaletown, Cortes island	66 66	66	19	, 44	22	66	14	13.7	1.15
Heriot bay	66 66	66	20	.44	24	66	16	13.8	1.16
Deceit bay, Redonda island	66 66	66	22	66	32	66	21	13.9	1.17
Bute inlet; at the head	66 66	66	22	- 66	32	66	21	14.1	1.19
				1					1333
Discovery passage to Queen Charlotte sound.			H.M.		н.м.		H.M.		
Cape Mudge	Sand Heads	Add	0:12	Add	0:18	Add	0:08	12.1	1.02
Quathiaski cove. On Discovery passage	66 66	66	0:05	66	0:16	Sub.	0:04	11.4	0.96
Campbell river. " "		Sub.	0:15	Sub.	0:10	66	0:35	11.2	0.94
Gowlland harbour. " "	66 66	66	0:40	46	0:40	66	1:05	10.8	0.91
Nymphe cove. Mouth of Menzies bay	66 66	46	1:09	66	1:19	(V:	ar.)	10.2	0.86
SEYMOUR NARROWS.* (See Slack Water tables.)									
Elk bay. On Discovery passage	Pt. Simpson	Add	1:30	Add	1:51	Add	1:47	10.5	0.57
Chatham point and Rock bay	" "	66	1:03	66	1:24	66	1:20	10.8	0.59
Forward harbour	èc ec	66	0:31	66	0:38	66	0:40	. 12-2	0.66
Vere cove. On Johnstone strait		66	0:25	46	0:38	66	0:35	12.4	0.67
Salmon river. " "	66 66		0:18	66	0:29	66	0:27	13.0	0.70.
Blinkinsop bay. " "	66 66	66	0:12	66	0:26	66	0:24	13.0	0.70
Port Neville. " "	66 66	66	0:09	66	0:23	66	0:20	13.7	0.74
Port Harvey. " "	66 66	66	0.05	66	0:21	66	0:15	13.4	0.72
Blackfish sound	66 66	Sub.	0:04	66	0:13	46	0:05	13.2	0.71
Alert bay, Cormorant island	66 66		0:15	66	0:05	Sub.		13.1	0.71
Knight inlet; at Glendale cannery	" "	66	0:21	Sub.		66	0:16	16.1	0.86
	66 68	"	0:30	66	0:21	66	0:25	13.6	0.74
Blunden harbour. In Queen Charlotte sound									
Port Hardy. " " "	66 68	66	0:36	66	0:28	66	0:31	13.9	0.75
	66 66	66	0:36 0:42	α.	0:28 0:39	"	0:31	13·9 13·3	0·75 0·72

^{*}For the time of Slack Water, see the tables for Seymour Narrows. Also for Slack Water in the other rapids and narrows in that region, see the tables for Yuculta rapids, or the table of differences on page 63.

TIDAL DIFFERENCES, to be applied to the Tide Tables named under Port of Reference. All results are in Pacific Standard time for the 120th Meridian west of Greenwich.

Locality.	Port	For Higher	Lo	or :	Fo Ha		Height of	Tide
Locality.	Reference.	H.W.	1	W.	Tid		Mean Rise	Ratio
Channets north east of Vancouver island.*		H.M.		H.M.		.M.	Feet.	
Chatham channel; at Root Point	Pt. Simpson		Add		Add		13.9	0.75
Wellbore channel	" "	" 0:31	66	0:38		0:40	12.6	0.68
Green Point. In Cordero channel.	44 44	" 1:10	66	1:13	1 500	1:21	12.2	0.66
Blind channel. (Mayne passage)	44 46	" .1:00	1 .	1:02	1	1:18	12.1	0.65
Shoal bay. At east end of Thurlow island	66 66	" 1:15	1	1:30		1:22	11.9	0.64
			F	or	Fo		Rise of T	Fida
Locality.	Port of R	eference.		W.	L.V		Tuse of 1	
							Springs.	Neap
Northern coast of B.C.				M.		М.	Feet.	Feet
Kildala. In Rivers inlet	Port Simps	on	Sub	. 44	Sub.	38	14	11
Head of Rivers inlet. (R. I. Cannery)	66 66		66	44	66	37	14	1:
Namu. On Fitz Hugh sound	66 66		66	33	66	33	141/2	1.
Bella kula	66 66		66	31	66	26	16	1
Bella belia. (McLaughiin bay)	1		66	37	66	36	14	1
Ocean Falls. In Cousin's inlet	46 46		66	38	66	32	15	1
Port Blakeney. In Millbank sound			66	38	66	37	13	THE STATE OF
China Hat. On Klemtu passage	66 66		,	35	. 66	33	13	
Swanson bay. On Graham reach			"	29	- 66	26	13	
Hartley bay. In Wright sound			"	23	46	16	13	10
Kıtimat	66 66		"	19	66 1	12	13½	10
Lowe inlet. Off Grenville channel	66 66			20	66	18	17	1.
Surf inlet. On Laredo channel	66 66		66	28	66	26	$17\frac{1}{2}$	18
Port Stephens. In Nepean sound	66 66		"	26 19	- 66	22 16	18	1
Port Canaveral. On Principe channel	66 66		66		66	12		18
Inverness. On North Skeena pass	66 66		66	15	Add	04	$19\frac{1}{2}$ $19\frac{1}{2}$	18
Chismore passage; Lewis Island	66 66				Auu "	10	20	14
Port Essington. (For variation, see page 8)	50 66		Aud	32	66	47	21	1.
PORT SIMPSON. (See Tide Tables)	66 66		66	00		00	20	14
Naas river; at Mill bay			66	08		22	21	1'
Granby bay. In Observatory inlet			66	13	66	11	204	10
Stewart. Head of Portland canal	66 66		66	04	66	01	22	1
Queen Charlotte islands.						0.2		137
Lockeport. (Kiunkwoi bay)	Port Simpso	n	Sub	. 08	Sub.	03	16	1:
Pacofi. Head of Selwyn inlet	" "		"	03	Add		16	13
Queen Charlotte. In Skidegate inlet				02	66	16	17	14
Shingle bay. " "				04	66	14	17	14
Masset harbour; at Indian village			Add	17		23	$9\frac{1}{2}$	
Naden harbour. On Dixon entrance	66 66		Sub		Sub.	04	13	10
Dadens. On Parry passage	46 66		66	28	66	24	121	(

^{*}For the time of Slack Water in the channels in this region, see table on page 63.

Fraser river.—The following tables for the time of the tide on the Fraser river, are based on simultaneous comparisons at New Westminster and Sand Heads during two complete years; and on further comparisons between New Westminster and the upper ports. These were made for $4\frac{1}{2}$ months at Port Coquitlam on Pitt river, during a full year at Port Haney, and during the six months at Sumas in which the tide is definitely felt there. During the freshet months, the tide is retarded considerably.

The differences of time are to be added to the tide tables for Sand Heads.

Locality.		dinary Mon			eshet Mont y May, Jun	1	Mean Rise of the
	Higher H. W.	Half Tides.	Lower L. W.	Higher H. W.	Half Tides.	Lower L. W.	Tide.
The state of the state of	н. м.	н. м.	н. м.	н. м.	н. м.	н. м.	Feet.
New WestminsterAdd:-	1:00	1:00	*	1:00	1:44	*	51/2
Port CoquitlamAdd:-	2:31	1:35	4:12	2:50	2:10	4:30	4
Port HaneyAdd:-	2:14	2:15	4:41	2:40	3:05	5:35	21/2
SumasAdd:-	4:25	5:05	7:40	†	t	†	1

At New Westminster, lower Low Water arrives later as the height of the tide becomes less, as it is then more retarded, The difference of time to be added, according to the height in the tide tables for Sand Heads, is indicated below in hours and minutes:—

Height in Sand Heads Tide Tables							
Add, for lower Low Water	2:13	2:28	2:47	3:04	3:16	3:25	3:33

At Port Coquitlam and Port Haney similarly, lower Low Water may arrive half an hour earlier or later than the above averages give, according to the height at Sand Heads.

Rise at New Westminster.—The Low-water datum in the harbour is at 7.00 feet above the zero level in the tide tables for Sand Heads. The rise above this datum in the ordinary months (when there is no freshet) is 45 per cent of the height in the tide tables for Sand Heads. In the freshet months, the level of lower Low Water is elevated from 7 feet above the zero, to 12 feet; and the rise of the tide from that level is then 20 to 30 per cent of the height in the tide tables. The actual level of High Water is thus higher in the freshet months.

PORT ESSINGTON.—A comparison with simultaneous tides at Port Simpson during twenty-two months, in 1909, 1910 and 1911, gives the following result on the average:—

Add to the time of tide at Port Simpson: For High Water, 32m. For Low Water, 47m.

Considerable variations from these average values occur during the course of the month and year. In the course of the lunar month, the following values should be used for greater accuracy:—

For High Water.—At Spring Tides, add 36m. At Neap Tides, add 29m. For Low Water.— " add 61m. " " add 34m.

^{*}For the time of lower Low Water at New Westminster, see the table next below. †During the freshet months, there is no rise of tide at Sumas.

DECLINATION OF THE SUN AND MOON.—1921.

In Pacific Standard time; for the 120th Meridian west.

Moon on Equa	tor.	Maximum Sou	th.	Moon on Equa	tor.	Maximum No	orth.	Sun's declination.
		January 6th	16 h.	January 14th	6 h.	January 20th	22 h.	
January 26th	22 h.	February 2nd	23 h.	February 10th	12 h.	February 17th	8 h.	
February 23rd	10 h.	March 2nd	7 h.	March 9th	19 h.	March 16th	15 h.	Equinox, March 20th.
March 22nd	20 h.	March 29th	15 h.	April 6th	3 h.	April 12th	20 h.	
April 19th	5 h.	April 26th	0 h.	May 3rd	11 h.	May 10th	3 h.	
May 16th	11 h.	May 23rd	8 h.	May 30th	20 h.	June 6th	12 h.	Solstice, June 21st.
June 12th	17 h.	June 19th	16 h.	June 27th	5 h.	July 3rd	23 h.	
July 10th	1 h.	July 17th	0 h.	July 24th	13 h.	July 31st	11 h.	
August 6th	11 h.	August 13th	6 h.	August 20th	20 h.	August 27th	20 h.	
September 2nd	21 h.	September 9th	13 h.	September 17tl	a 2 h.	September 24t	h 3 h.	Equinox, September 23rd.
September 30th	8 h.	October 6th	21 h.	October 14th	9 h.	October 21st	8 h.	
October 27th	17 h.	November 3rd	7 h.	November 10th	18 h.	November 17t	h 15h.	
November 24th	0 h.	November 30th	16 h.	December 8th	3 h.	December 15tl	0 h.	Solstice, December 22nd.
December 21st	6 h.	December 28th	1 h.					

PHASES AND DISTANCE OF THE MOON.—1921.

In Pacific Standard time; for the 120th Meridian west.

Month.	New	Moon.	First	Quarter.	Full	Moon.	Last	Quarter.	Apo	gee.	Pe	rigee.
	DAY.	н. м.	DAY.	н. м.	DAY.	н. м.	DAY.	н. м.	DAY.	H.	DAY.	н.
January February March	8th 7th	21:27 16:37		22:31 10:53		15:08 1:32		12:02 6:03	9th 5th 4th	- 1 4 18	23rd 20th	5 16
April	9th 8th	10:09 1:05		19:49 2:12		12:19 23:49	31st	1:13 20:09	1st 29th	13	20th 16th	17 7
May	7th	13:01	14th	7:25	21st	12:15	29th	13:45	27th	3	11th	12
June	5th	22:15	12th	13:00	19th	1:41	28th	5:17	23rd	18	8th	1
July	5th	5:36	11th	20:16	19th	16:08	27th	18:20	21st	2	6th	5
August	3rd	12:17	10th	6:14	18th	7:28	26th	4:51	17th	5	3rd	14 23
September October	1st 1st 30th	19:33 4:26 15:39	8th	19:29 12:12		23:20 15:00		13:18 20:31	13th 11th	. 12	29th	6 22
November	29th	5:26	7th	7:54	15th	5:39	22nd	3:41	7th	22	21st	2
December	28th	21:39	7th	5:19	14th	18:50	21st	11:54	5th	19	17th	14

9				JA	NU	JARY.				e.				FE	BRI	UARY			
Date.	Day.	Time. I	H't	Time.	H't	Time	H't	Time	. H't	Date.	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't
-		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Sa.	1:32	5 · 1	8:46	9.2	16:14	4.8	22:30	6.2	1	Tu.			9:08	9 · 1	17:22	3.6		
2	\$.	2:24	6.0	9:17	9.3	17:13	4.3			2	w.					9:52	9.1	18:15	3.3
3	M.			9:49	9.4	18:04	3.7			3	Th.					10:37	9.0	18:55	3.0
4	Tu.			10:23	9.5	18:46	3.1			4	F.	4:36	8.6	6:15	8.4	11:20	8.9	19:28	2.8
5	w.			10:57	9.5	19:24	2.7			5	Sa.	4:54	8.6	7:30	8.3	12:02	8.8	20:00	2.7
6	Th.	5:12 8	8.6	6:30	8.5	11:31	9.5	19:58	2.3	6	S .	5:19	8.5	8:18	7.9	12:42	8.6	20:31	2.6
7	F.	5:41 8	8-8	7:25	8.6	12:03	9.4	20:30	2.1	7	M.	5:48	8.3	8:56	7.6	13:21	8.4	21:03	2.7
8	Sa.	6:09	8-8	8:14	8.5	12:34	9.2	21:02	$2 \cdot 1$	8	Tu.	4:48	8.2	9:33	7.2	14:01	8.2	21:37	3.0
9	\$.	6:36	8.7	9:00	8.4	13:04	9.0	21:35	$2 \cdot 1$	9	W.	4:58	8.2	10:12	6.8	14:45	7.9	22:14	3.4
10	М.	7:05 8	8.6	9:47	8.2	13:35	8.7	22:09	2.3	10	Th.	5:22	8.2	10:55	6.3	15:36	7.6	22:52	4.0
11	Tu.	7:00 8	8 · 4	10:36	7.9	14:03	8.4	22:43	$2 \cdot 7$	11	F.	5:49	8.2	11:46	$5 \cdot 9$	16:39	7.1	23:25	4.6
12	w.	6:42 8	8.5	11:30	7.6	14:33	7.9	23:17	$3 \cdot 2$	12	Sa.	6:14	8.3	12:41	$5 \cdot 4$	17:55	6.8	23:38	$5 \cdot 3$
13	Th.	7:03 8	8.4	12:29	$7 \cdot 2$	15:10	$7 \cdot 4$	23:52	3.9	13	S .	6:36	8.5	13:37	4.8	19:30	$6 \cdot 5$	23:30	5.8
14	F.	7:30 8	8.5	13:30	6.7	16:00	6.9			14	M.	6:57	8.7	14:32	$4 \cdot 2$	21:21	6.4	23:18	6.3
15	Sa.	0:29	4.5	8:01	8-6	14:28	6.0	18:36	6.3	15	Tu.	7:21	8.9	15:26	3.7				
16	\$.	0:13	5.2	8:23	8.8	15:22	5.2	21:07	6.6	16	w.			7:58	9 · 1	16:21	3.0		
17	М.	0:16	5.8	8:43	9.0	16:13	4.4			17	Th.			8:52	9.2	17:17	2.6		
18	Tu.			9:07	9.3	17:03	3.6		• • • •	18	F.					10:01	9.3	18:11	$2 \cdot 2$
19	W.			9:38	9.6	17:53	2.8			19	Sa.	4:14	7.9	5:42	7.8	11:05	9.3	19:01	$2 \cdot 0$
20	Th.					10:24	9.8	18:42	2.0	20	\$.	4:18	7.8	6:51	7.4	12:06	9.1	19:46	2.0
21	F.					11:16	9.9	19:29	1.5	21	M.	3:12	8.0		6.8	13:08		20:29	2.2
22	Sa.		8.2					20:14	1.1	22	Tu.	3:36	8.2			14:11		21:11	2.7
23	\$.		8.2			13:01		20:56		23	W.	4:02		9:40	-	15:11		21;52	3.4
24	М.			8:58		13:50		21:37	1.5	24	Th.	4:30		10:32		16:15		22:34	4.2
25	Tu.			9:57		14:44		22:18	2.1	25	F.	5:01		11:26		17:27			5.1
26	W.			10:58		15:43		23:00	2.9	26	Sa.	5:34		12:24		18:48			
27	Th.			12:01		16:56		23:43	3.9	27	\$.	0:02	5.9			13:26			6.8
28	F.			13:06		18:21			ì	28	M.	0:48	6.7	6:46	8.7	14:26	3.7		
29	Sa.			7:25		14:12		20:18											
30	\$.			7:59		15:17					,								
31	М.		• • • •	8:32	9.1	16:21	4.0		• • • • •	1		1		-					

The Height is in feet and tenths of a foot, above the average level of lower Low Water.

ESQUIMALT.—To find the depth of water on the sill of the Dry Dock at any tide, add 19.0 feet to the height of High Water as above given. Tidal Differences for Fuca and Haro straits are given on page 5.

				I	MAI	RCH.									API	RIL.			
Date.	Day.	Time. 1	H't	Time.	H't	Time.	H't	Time	H't	Date.	Day.	Time.	H't	Time.	H't	Time	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.									н. м.	
1	Tu.			7:28	8.5	15:23	3.7			1	F.	1:22							3.6
2	w.					8:19		16:18	3.5	2	Sa.	1:54				9:54		17:03	3.8
3	Th.					9:17	8.2	17:12	3.5	3	\$.	2:18	7.7	8:18	6.5	11:08	6.8	17:54	4.0
4	F.	3:11	8 - 1	8:12	7.9	10:18	8.0	18:03	3.4	4	M.	1:18	7.7	8:08	6 · 1	12:11	6.8	18:41	4.2
5	Sa.	3:36	8.2	8:12	7.6	11:12	7.9	18:49	3.4	5	Tu.	1:30	7.8	8:00	$5 \cdot 5$	13:06	6.9	19:23	4.4
6	S .	3:58	8 - 1	8:06	$7 \cdot 2$	12:01	7.8	19:28	3.4	6	w.	1:48	7.8	8:16	4.9	14:00	6.9	20:03	4.6
7	M.	4:16	7.9	8:21	6.8	12:48	7.7	20:03	3.4	7	Th.	2:08	7.8	8:42	4.1	14:53	7.0	20:41	5.0
8	Tu.	3:09	7-8	8:41	6.3	13:36	7.7	20:37	3.6	8	F.	2:28	7.9	9:17	3.5	15:47	7.1	21:16	$5 \cdot 4$
9	w.	3:20	7.8	9:08	5 ·8	14:26	7.6	21:10	3.9	9	Sa.	2:49	8.1	9:58	2.8	16:45	7.1	21:50	5.9
10	Th.	3:39	7.9	9:42	5.2	15:18	7.5	21:44	4.3	10	\$.	3:10	8.3	10:42	$2 \cdot 4$	17:48	7.2	22:26	6.4
11	F.	4:00	7.9	10:24	$4 \cdot 7$	16:14	7.3	22:18	4.9	11	M.	3:31	8.4	11:30	2.0	19:00	7.2	23:06	6.8
12	Sa.	4:22	8 · 1	11:11	4.2	17:18	7.0	22:50	5.5	12	Tu.	3:53	8.5	12:22	1.8	20:18	7.3	23:51	$7 \cdot 2$
13	S.	4:45	8.2	12:00	3.7	18:36	6.9	23:18	6.1	13	w.	4:18	8.4	13:16	1.8				
14	M.	5:07	8 · 4	12:52	3.3	20:00	6.8	22:36	6.6	14	Th.			4:48	8.3	14:11	2.0	22:36	$7 \cdot 6$
15	Tu.	5:30	8.5	13:47	2.9					15	F.	2:23	7.3	5:36	7.8	15:07	2.4	23:08	7.7
16	w.	5:55	8.6	14:45	$2 \cdot 7$					16	Sa.	3:54	$7 \cdot 0$	7:58	$7 \cdot 2$	16:02	2.8	23:41	7.7
17	Th.		• • •	6:24	8.6	15:45	2.6			17	\$.	5:12	$6 \cdot 4$	9:54	6.9	16:56	3.4		
18	F.			8:05	8.4	16:43	$2 \cdot 5$			18	M.	0:12	7.9	6:16	$5 \cdot 6$	11:30	6.8	17:49	$4 \cdot 0$
19	Sa.	2:33	7.6	4:48	$7 \cdot 4$	9:48	8.2	17:37	2.6	19	Tu.	0:40	8.0	7:08	$4 \cdot 7$	12:52	6.9	18:40	$4 \cdot 6$
20	S .	1:18	7.6	6:00	6.9	11:06	8.0	18:28	2.9	20	W.	1:05	8.2	7:52	3.8	14:04	7.0	19:28	$5 \cdot 2$
21	M.	1:35	7.8	7:02	6.1	12:19	8.0	19:16	3.2	21	Th.	1:29	8.4	8:33	3.0	15:11	7.1	20:15	5.7
· 22	Tu.	2:04 8	8.0	7:55	5 ·3	13:28	7.9	20:02	3.7	22	F.	1:52	8.6	9:13	2.4	16:16	7.2	21:00	$6 \cdot 2$
23	w.	2:32	8.2	8:41	$4 \cdot 5$	14:33	7.6	20:46	4.2	23	Sa.	2:16	8.6	9:53	2.0	17:21	7.2	21:43	6.7
24	Th.	2:59 8	3.3	9:26	3.8	15:36	7.6	21:28	4.9	24	\$.	2:40	8.7	10:34	1.8	18:39	7.4	22:28	7.1
25	F.	3:25	8.5	10:12	3.3	16:42	$7 \cdot 4$	22:09	5.6	25	М.	3:02	8.5	11:16	1.8	21:00	7.6	23:18	7.4
26	Sa.	3:51 8	3.5	11:00	3.0	17:56	7.3	22:49	6.2	26	Tu.	3:18	8.2	12:00	2.0	22:02	7.7		
27	\$.	4:18 8	3.5	11:50	2.8	19:18	7.2	23:30	6.8	27	w.	0:16	7.5	3:18	7.9	12:46	2.3	22:52	7.9
28	M.	4:42 8	3 - 4	12:42	2.9	22:48	7.3			28	Th.					13:34	2.7	23:32	7-9
29	Tu.	0:19	7.2	5:03	8.2	13:35	2.9	23:50	7.6	29	F.					14:23	3.2	23:48	7.9
30	W	1:19	7.5	4:48	7.9	14:27	3.1			30	Sa.					15:12	3.6	23:12	7.8
31	Th.	0:417	7.8	2:36	7.6	4:30	$7 \cdot 7$	15:18	3.3				•						

The HEIGHT is in feet and tenths of a foot, above the average level of lower Low Water.

ESQUIMALT.—To find the depth of water on the sill of the Dry Dock at any tide, add $19\cdot0$ feet to the height of High Water as above given. Tidal Differences for Fuca and Haro straits are given on page 5.

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te.	, v			MA	Y.				te.	y.				JUI	NE.			
Date.	Day.	Time. H't	Time.	H't	Time.	H't	Time.	H't	Date.	Day.	Time.	H't	Time.	H't	Time.	H't	Time.	H't
		H. M. FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	s.				16:02	4.1	23:37	7.9	1	w.	6:45	4.3	12:16	$5 \cdot 7$	14:32	5.6	23:21	8.3
2	M.	7:48 5.6	11:00	5.8	16:53	4.5			2	Th.	6:59	3.5					23:44	8.6
3	Tu.	0:03 7.9	7:32	5.1	12:15	6.0	17:45	5.0	3	F.	7:26	2.6						
4	w.	0:26 7.9	7:34	4.3	13:19	6.2	18:35	5.3	4	Sa.	0:08	8.8	8:00	1.7				
5	Th.	0:46 8.1	7:55	3.6	14:17	6.5	19:19	5.7	5	\$.	0:33	9.1	8:36	0.9				
6	F.	1:05 8.3	8:22	2.7	15:14	6.8	19:59	6.1	6	M.	1:01	9.2	9:15	0.4	18:30	7.4	20:50	7.3
7	Sa.	1:25 8.5	8:57	1.9	16:09	7.1	20:38	6.5	7	Tu.	1:33	9.2	9:58	0.2	18:30	7.7	21:48	7.4
8	\$.	1:47 8.7	9:38	1.3	17:12	7.2	21:20	6.8	8	w.	2:11	9.0	10:42	0.2	18:58	7.8	22:51	7.3
9	M.	2:12 8.8	10:22	0.9	18:06	7.4	22:07	7.1	9	Th.	2:55	8.6	11:28	0.6	19:32	8.0		
10	Tu.	2:39 8.8	11:08	0.7	19:04	7.5	23:02	7.3	10	F.	0:03	7.1	3:46	7.9	12:15	1.3	20:08	8.1
11	w.	3:07 8.6	11:55	0.8	20:07	7.7			11	Sa.	1:22	6.7	4:45	7.1	13:03	2.1	20:45	8.2
12	Th.	0:06 7.4	3:38	8.2	12:44	1.2	21:06	7.8	12	S.	2:48	6.0	6:28	6.3	13:52	3.2	21:21	8.4
13	F.	1:20 7.3	4:17	7.7	13:35	1.8	21:50	7.9	13	M.	4:06	5.3	9:10	5.8	14:42	4.2	21:55	8.5
14	Sa.	2:45 6.8	5:13	7.0	14:27	2.5	22:21	8.0	14	Tu.	5:14	4.4	11:05	5.7	15:34	5.3	22:25	8.7
15	S.	4:30 6.2	8:11	6.3	16:20	3.4	22:50	8.2	15	w.	6:09	3.6					22:53	8.8
16	M.	5:33 5.3	10:24	6.0	16:12	4.3	23:17	8.3	16	Th.	6:54	2.8					23:20	8.9
17	Tu.	6:24 4.4	12:16	6.1	17:05	5.2	23:42	8.5	17	F.	7:31	2.2					23:48	9.0
18	w.	7:05 3.5	14:53	6.4	18:00	5.9			18	Sa.	8:05	1.7	17:30	7.8	19:21	7-7		
19	Th.	0:06 8.6	7:43	2.7	16:14	6.9	18:56	6.5	19	\$.	0:18	9.0	8:38	1.4	18:15	8.0	20:06	7.8
20	F.	0:29 8.8	8:20	2.0	17:18	7.3	19:47	7.0	20	M.	0:46	8.9	9:11	1.2	18:53	8.0	20:52	7.8
21	Sa.	0:54 8.9	8:56	1.5	18:14	7.6	20:34	7.3	21	Tu.	1:10	8.7	9:45	1.2	19:30	8.0	21:44	7.7
22	S .	1:18 8.9	9:32	1.3	19:07	7.8	21:19	7.5	22	w.	1:33	8.4	10:21	1.4	20:04	7.9	22:24	7.6
23	M.	1:40 8.8	10:09	1.2	19:57	7.8	22:06	7.6	23	Th.	1:55	8.0	10:58	1.8	20:36	7.9	23:52	7.4
24	Tu.	1:59 8.5	10:48	1.4	20:43	7.9	23:00	7.7	24	F.	2:19	7.6	11:36	2.2	19:43	7.9		
25	W.	2:14 8.2	11:29	1.6	21:22	8.0			25	Sa.					12:13	2.8	20:13	8.0
26	Th.	0:04 7.7	2:24	7.8	12:11	2.1	21:48	8.0	26	5.					12:49	3.5	20:42	8.0
27	F.			• • • •	12:54	2.6	21:36	8.0	27	M.		• • • •			13:26	4.1	21:10	8.1
28	Sa.				13:36	3.1	21:52	8.1	28	Tu.	6:30	5.4	8:36	5.4	13:05	4.8	21:35	8.2
29	\$.			• • • •	14:16	3.8	22:14	8.1	29	w.	5:13	4.6	10:34	5.4	12:48	5.2	21:58	8-4
30	M.		•••••		14:54	4.4	22:37	8.1	30	Th.	5:39	3.8		• • • •			22:21	8.6
31	Tu.	7:00 5.0	11:06	5.4	15:29	5.0	22:59	8.2										

The HEIGHT is in feet and tenths of a foot, above the average level of lower Low Water.

Esquimalt.—To find the depth of water on the sill of the Dry Dock at any tide, add $19\cdot0$ feet to the height of High water as above given. Tidal Differences for Fuca and Haro straits are given on page 5.

		1								11									
Date.	y.				JU	LY.				ke.	٧.			,	AUG	UST.			
Da	Day	Tim	e. H'	Tim	e. H'	t Tim	e. H'	t Tim	e. H't	Date.	Day	Time	. H'	Time	H't	Time.	H't	Time	H't
		H. N	. FT	н. м	A. FT	. н. м	I. FT	. н. м	. FT			н. м	. FT	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	F.	6:13	2.9					. 22:46	8.9	1	M.	7:04	1.4					23:48	9.2
2	Sa.	6:50	2.1		• • • • •			. 23:18	9.2	2	Tu.	7:49	1.0	17:12	7:3	19:32	7.0		
3	\$.	7:29	. 1.3							3	w.	0:45	9 · 1	8:32	0.9	16:08	7.5	20:26	$6 \cdot 5$
4	M.	0:01	9.4	8:10	0.6	3				4	Th.	1:41	8.9	9:14	1.1	16:30	7.7	21:22	6.1
5	Tu.	0:46	9.4	8:52	0.8	18:00	7.8	20:36	7.3	5	F.	2:35	8.5	9:55	1.6	17:02	7.8	22:20	5.6
6	W.	1:33	9.3	9:35	0.2	17:27	7.7	21:36	7.0	6	Sa.	3:31	7.9	10:37	2.4	17:39	8.0	23:21	5.1
7	Th.	2:21	8.9	10:19	0.6	18:03	7-9	22:40	6.7	7	\$.	4:36	, 7.3	11:21	3.3	18:19	8.1		
8	F.	3:12	8.4	11:04	1.2	18:41	8 · 1	23:48	6.4	8	M.	0:24	4.6	6:00	6.7	12:06	4.3	18:58	8.2
9	Sa.	4:12	7.6	11:50	2.1	19:21	8.2			9	Tu.	1:29	4.1	7:48	6.3	12:52	5.0	19:36	8.3
10	\$.	0:59	5.8	5:30	6.8	12:37	3 · 1	20:00	8.4	10	w.	2:36	3.7	11:00	6.2	13:39	6.1	20:14	8.4
11	M.	2:12	5.2	7:21	6.1	13:25	4.2	20:36	8.5	11	Th.	3:40	3.4					20:53	8.4
12	Tu.	3:26	4.4	9:34	5.8	14:15	5.2	21:08	8.6	12	F.	4:38	3 - 1					21:35	8.3
13	w.	4:36	3.8					21 - 39	8.7	13	Sa.	5:33	2.9					22:20	8.3
14	Th.	5:34	3.2					22:11	8.8	14	S.	6:23	2.7	16:06	7.8	18:20	7.6	23:11	8-1
15	F.	6:19	2.6					22:44	8.8	15	M.	7:08	2.6	16:21	7.8	19:16	7.4		
16	Sa.	7:00	2.3					23:18	8.8	16	Tu.	0:03	8.1	7:47	2.5	16:48	7.7	20:04	7.1
17	S .	7:37	1.9	17:24	8.0	19:03	7.8	23:53	8.7	17	w.	0:49	7.9	8:22	2.6	17:18	7.5	20:45	6.7
18	M.	8:12	1.7	17:46	8.0	20:00	7.7			18	Th.	1:32	7.8	8:55	2.7	16:18	7.5	21:23	6.3
19	Tu.	0:29	8.6	8:46	1.7	18:13	7.9	20:48	7.5	19	F.	2:13	7.6	9:27	2.9	16:37	7.5	21:59	5.9
20	w.	1:06	8.3	9:19	1.7	18:41	7.8	21:33	7.3	20	Sa.	2:55	7.3	10:00	3.3	16:57	7.5	22:36	5.5
21	Th.	1:44	8.0	9:52	2.0	18:24	7.6	22:17	6.9	21	S .	3:44	7.1	10:35	3.9	17:18	7.5	23:21	5.1
22	F.	2:23	7.7	10:26	2.4	18:14	7.7	23:05	6.7	22	M.	4:42	6.7	11:09	4.4	17:40	7.5		
23	Sa.	3:03	7.3	11:02	2.9	18:38	7.7			23	Tu.	0:12	4.7	5:51	6.4	11:38	5.1	18:02	7.7
24	S .	0:02	6.3	3:46	6.8	11:40	3.5	19:12	7.8	24	w.	1:06	4.2	7:17	6.2	11:24	5.6	18:25	7.8
25	M.	1:03	5.9	4:51	6.3	12:15	4.1	19:42	7.8	25	Th.	2:02	3.8	8:48	6.1	11:06	6.0	18:51	8.1
26	Tu.	2:01	5.3	6:37	5.8	12:24	4.8	20:08	7.8	26	F.	2:59	3.3				1	19:21	8.3
27	w.	2:55	4.7	8:36	5.6	12:00	5.3	20:30	8.1	27	Sa.	3:54	2.9				2	0:14	8.4
28	Th.	3:47	4.0					20:51	8.4	28	S .	4:48	2.5				2	1:31	8.5
29	F.	4:38	3.3					21:21	8.7	29	M.	5:40	2.2				2	2:44	8.5
30	Sa.	5:28	2.6					21:58	8.9	30	Tu.	6:30	2.0	4:08	7.2	8:30	6.72	3:49	8.5
31	S.	6:17	1.9					22:48	9.1	31	w.	7:17	2.0	4:24	7.41	9:26	3.0		

The HEIGHT is in feet and tenths of a foot, above the average level of lower Low Water.

ESQUIMALT.—To find the depth of water on the sill of the Dry Dock at any tide, add 19.0 feet to the height of High Water as above given. Tidal Differences for Fuca and Haro straits are given on page 5.

·e.				SEI	PTE	MBEI	₹.			9	Λ.			. 0	CTC	BER.			
Date.	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't	Date	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Th.	0:50	8.4	8:02	2.2	14:51	7.6	20:19	5.4	1	Sa.	2:23	7.6	8:18	4.4	14:20	8.2	21:01	3.2
2	F.	1:50	8.2	8:46	2.6	15:22	7.8	21:11	4.7	2	5 .	3:27	7.6	9:01	5.0	14:49	8.4	21:45	2.7
3	Sa.	2:53	8.0	9:30	3.2	15:54	8.0	22:02	4.1	3	M.	4:32	7.5	9:45	5.7	15:18	8.5	22:30	2.4
4	S.	4:00	$7 \cdot 6$	10:13	4.0	16:27	8 · 1	22:55	3.7	4	Tu.	5:41	$7 \cdot 4$	10:31	6.3	15:47	8.5	23:18	2.3
5	M.	5:11	$7 \cdot 2$	10:57	4.8	17:01	8.2	23:52	3.3	5	w.	6:56	$7 \cdot 4$	11:21	6.8	16:12	8.3		
6	Tu.	6:30	6.9	11:43	5 · 6	17:36	8.2			6	Th.	0:09	$2 \cdot 4$	9:48	$7 \cdot 5$	12:16	7.3	16:30	8.1
7	w.	0:52	3.2	8:00	6.8	12:32	6.3	18:13	8.1	7	F.	1:02	$2 \cdot 6$	11:02	7.8	13:18	7.5	16:12	7.8
8	Th.	1:53	3.1	11:44	7.0	13:27	6.9	18:54	8.0	8	Sa.	1:56	2.9	11:54	7.9				
9	F.	2:52	3.1	13:00	$7 \cdot 4$	14:28	7.3	19:50	7.8	9	\$.	2:51	3.2	12:30	7.9				
10	Sa.	3:48	3.1	13:49	$7 \cdot 6$	16:06	7.5	21:02	$7 \cdot 6$	10	M.	3:45	3.6	12:51	7.9	19:53	6.4	21:52	6.6
11	S .	4:42	3.2	14:24	7.7	19:45	7.2	22:11	7.4	11	Tu.	4:38	4.0	12:48	7.8	19:48	6.1	23:08	6.5
12	M.	5:34	3.3	14:54	$7 \cdot 7$	19:45	6.9	23:13	7.3	12	w.	5:29	4.3	12:38	7.8	19:52	$5 \cdot 6$		
13	Tu.	6:23	3.4	15:20	7.6	20:01	6.5			13	Th.	0:16	6.6	6:17	4.6	13:02	7.9	20:00	5.1
14	w.	0:10	7.3	7:08	3.5	14:38	$7 \cdot 5$	20:16	6.1	14	F.	1:16	6.7	7:01	4.9	13:24	7-9	20:13	4.5
15	Th.	1:02	7.3	7:47	3.7	15:33	7.5	20:33	5.6	15	Sa.	2:10	6.9	7:41	$5 \cdot 2$	13:44	8.0	20:33	3.9
16	F.	1:49	$7 \cdot 2$	8:22	3.9	14:49	7.6	20:54	5.1	16	S.	2:59	7.0	8:18	$5 \cdot 5$	14:02	8.1	21:00	3.3
17	Sa.	2:35	$7 \cdot 2$	8:56	4.2	15:10	7.6	21:23	$4 \cdot 5$	17	M.	3:49	7.2	8:54	5.9	14:19	8.2	21:37	2.7
18	\$.	3:23	7.1	9:31	4.6	15:32	7.6	22:03	4.1	18	Tu.	4:43	7.3	9:29	$6 \cdot 4$	14:36	8.3	22:19	2.3
19	M.	4:16	7.1	10:08	5.1	15:52	7.7	22:47	3.7	19	W.	5:43	7.3	10:03	6.8	14:52	8.4	23:05	2.0
20	Tu.	5:16	6.9	10:44	5.6	16:11	7.8	23:34	3.3	20	Th.	6:48	7.4	10:34	7.2	15:10	8.5	23:54	1.9
21	w.	6:26	6.8	11:15	6.2	16:30	7.9			21	F.	7:56	7.6	11:01	$7 \cdot 4$	15:31	8.4		
22	Th.	0:25	3.0	7:42	6.8	10:30	6.6	16:48	8.1	22	Sa.	0:44	1.9					16:04	8.3
23	F.	1:20	2.7					17:09	8.2	23	\$.	1:36	2.1	9:54	7.8	14:12	$7 \cdot 5$	16:51	7.8
24	Sa.	2:16	2.6					17:39	8.1	24	M.	2:30	2.5	10:33	7.9	15:24	7.1	17:56	7.2
25	\$.	3:12	3.5					18:46	7.9	25	Tu.	3:25	3.0	11:05	8.0	16:44	6.4	21:26	6.9
26	M.	4:07	2.6	12:18	7.3	16:28	7.0	21:18	7.7	26	W.	4:20	3.7	11:34	8.2	17:51	5.6	23:08	6.8
27	Tu.	5:02	2.7	12:38	7.4	17:39	6.5	22:54	7.6	27	Th.	5:14	4.3	12:02	8:4	18:45	4.6		
28	W.	5:56	3.0	13:00	7.6	18:40	5.7			28	F.	0:37	7.0	6:07	5.0	12:20	8.6	19:28	3.7
29	Th.	0:09	7.6	6:47	3.4	13:25	7.8	19:31	4.8	29	Sa.	1:54	7.2	6:58	5.6	12:55	8.7	20:09	2.8
30	F.	1:18	7.6	7:34	3.8	13:52	8.1	20:16	4.0	30	\$.	3:06	7-4	7:46	6.2	13:21	8.9	20:49	2.2
										31	M.	4:24	7.6	8:32	6.7	13:46	9.0	21:30	1.7

The Height is in feet and tenths of a foot, above the average level of lower Low Water.

ESQUIMALT.—To find the depth of water on the sill of the Dry Dock at any tide, add 19.0 feet to the height of High Water as above given. Tidal Differences for Fuca and Haro straits are given on page 5.

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· ·				NC	VE	MBER	•			° .				DE	CE	MBER			
Date.	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't	Date.	Day.	Time.	H't	Time.	H't	Time.	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Tu.	5:50	7.7	9:19	7.2	14:09	9.0	22:12	1.6	1	Th.	7:31	8.6	9:46	8.3	13:42	9.2	22:26	1.6
2	W.	7:24	7.9	10:08	7.5	14:29	8.9	22:55	1.6	2	F.	8:14	8.6	10:41	8.3	14:01	8.8	23:06	1.9
3	Th.	8:38	8.1	11:01	7.8	14:44	8.6	23:39	1.9	3	Sa.	8:51	8.6	11:45	8.2	14:18	8.4	23:47	2.4
4	F.	9:35	8.2	12:01	7.9	14:52	8.3			4	\$.	9:15	8.6						
5	Sa.	0:24	.2.3	10:18	8.3					5	M.	0:29	3.0	8:55	8.7				
6	\$.	1:10	2.8	10:48	8.4					6	Tu.	1:10	3.7	9:21	8.8				
7	M.	1:57	3.4	10:59	8.4					7	w.	1:50	$4 \cdot 4$	9:50	8.8				
8	Tu.	2:45	4.0	10:45	8.4	19:36	5.9	21:39	6.0	8	Th.	2:29	5.1	10:18	8.8	18:55	5.3	23:18	5.8
9	W.	3:35	4.6	11:12	8.4	19:34	5.5	23:16	6.0	9	F.	1:30	5.7	10:43	8.8	18:50	4.6		
10	Th.	4:26	5.2	11:37	8.5	19:26	5.0			10	Sa.			11:05	9.0	18:55	4.0		
11	F.	0:35	6.2	5:18	$5 \cdot 7$	12:00	8.5	19:32	4.4	11	\$.					11:26	9.1	19:13	3.2
12	Sa.	1:38	6.5	6:10	6.1	12:21	8.6	19:46	3.7	12	M.					11:48	9.3	19:43	2.3
13	\$.	3:35	6.8	7:00	6.5	12:40	8.7	20:10	2.9	13	Tu.					12:12	9.6	20:19	1.6
14	M.	4:28	7.1	7:44	6.9	12:58	8.8	20:41	2.2	14	w.		• • • • !			12:39	9.7	20:57	1.1
15	Tu.	5:18	7-4		7.2	13:17	9.0	21:18	1.6	15	Th.				• • • •	13:11	9.8	21:37	0.8
16	W.	5:07	7.6	9:01		13:37		22:00	1.3	16	F.	6:30	8.3	9:28	8.1	13:46	9.6	22:18	0.8
17	Th.					14:01		22:44	1.1	17	Sa.	6:18	8.4	10:24	8.0	14:27		23:00	1.2
18	F.						9.1	23:29	1.2	18	\$.	6:59	8.6	11:28	7.7	15:16	8.7	23:44	1.8
19	Sa.	7:36		11:39		15:04				19	М.	7:39	8.7	12:41	7.3	16:21			
20	\$.	0:15		8:26		12:53		15:48	8.2	20	Tu.	0:30		8:17		14:00		17:48	
21	M.	1:03		9:10		14:12		16:43	7.4	21	W.	1:17		8:52		15:20		20:06	6.3
22	Tu.	1:53		9:47		15:34				22	Th.	2:03		9:24		16:36		22:30	
23	W.	2:45		10:18		16:55		22:06	6.3	23	F.	2:48		9:54		17:38			
24	Th. F.	3:38		10:45		17:56		23:48	6.4	24	Sa.					18:24			
25		4:33		11:11		18:42		10.00		25	5 .					19:03		10.40	
26 27	Sa.	3:06		5:30 6:30		11:36		19:22	$2 \cdot 9$ $2 \cdot 2$	26 27	M. Tu.	5:21		6:57		11:22		19:40 20:16	2·1 1·8
28	M.	5:06	8.0			12:02		20:35	1.7	28	W.	5:58		7:52		12:29		20:16	1.8
29	Tu.	5:58	8.3			12:29		20:55	1.4	29	Th.	6:33		8:43		13:01		21:27	1.7
30	W.	6:46	8.5			13:20		21:48	1.4	30	F.	7:05		9:33		13:30		22:04	1.7
90	***	0.10	0 0	3.00	0 2	10.20	0 7	21.10	1 1	31	Sa.	7:34		10:26		13:58		22:41	2.3
								1			D46	7.01	0 1	-0.20	- 21	20.50			

The HEIGHT is in feet and tenths of a foot, above the average level of lower Low Water.

ESQUIMAIT.—To find the depth of water on the sill of the Dry Dock at any tide, add 19.0 feet to the height of High Water as above given. Tidal DIFFERENCES for Fuca and Haro straits are given on page 5.

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θ.				J.	ANU	ARY	•			e.	7.			FF	EBRU	JARY	7.		
Date.	Day.	Time	. H't	Time	. H't	Time	. H't	Time	. H't	Date	Day	Time	H't	Time	H't	Time	. H't	Time	H't
		н. м.	. FT.	н. м	. FT.	н. м.	FT.	н. м	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Sa.	4:55	5.7	11:42	12.9	19:03	4.2			1	Tu.	2:06	10.0	6:28	8.7	12:18	11.6	20:20	3.1
2	\$.	1:08	9.2	5:49	7.1	12:20	12.6	20:05	3.5	2	w.	3:27	10.6	7:53	9.2	13:04	11.3	21:12	2.7
3	M.	2:34	9.7	6:57	8.3	13:01	12.4	20:59	2.9	3	Th.	4:32	11.3	9:16	9.3	13:54	11-1	21:54	2.5
4	Tu.	3:52	10.5	8:13	9 · 1	13:43	12.2	21:46	2.4	4	F.	5:18	11.8	10:18	9.2	14:46	10.9	22:32	2.4
5	w.	4:56	11.2	9:28	9.5	14:26	11.9	22:27	2.0	5	Sa.	5:52	12.2	11:09	8.8	15:39	10.7	23:08	2.4
6	Th.	5:46	11.9	10:34	9.6	15:08	1.6	23:04	1.8	6	S .	6:25	12.4	11:54	8.4	16:29	10.6	23:43	2.5
7	F.	6:27	12.5	11:30	9.6	15:48	11.3	23:39	1.7	7	M.	6:56	12.5	12:33	8.0	17:15	10.6		
8	Sa.	7:04	12.8	12:17	9.4	16:27	11.0			8	Tu.	0:16	2.7	7:24	12.4	13:07	7.5	17:59	10.5
9	\$.	0:12	1.8	7:37	13.0	13:00	9.0	17:07	10.8	9	w.	0:48	2.9	7:50	12.3	13:40	7.0	18:42	10.5
10	M.	0:44	1.9	8:09	13.0	13:40	8.7	17:48	10.6	10	Th.	1:19	3.4	8:14	12.2	14:13	6.4	19:28	10.5
11	Tu.	1:14	2.2	8:39	13.0	14:18	8.2	18:31	10.3	11	F.	1:51	3.9	8:37	12.2	14:47	5.8	20:19	10.3
12	w.	1:43	2.6	9:07	12.9	14:55	7.7	19:18	10.1	12	Sa.	2:24	4.7	8:59	12.2	15:24	5.2	21:19	10.1
13	Th.	2:13	3.1	9:32	12.7	15:33	$7 \cdot 2$	20:12	9.8	13	5.	3:00	5.6	9:22	12.2	16:08	4.6	22:30	9.9
14	F.	2:45	3.8	9:56	12.6	16:13	6.6	21:18	9.4	14	M.	3:42	6.6	9:49	12.2	17:05	4.2	23:52	9.9
15	Sa.	3:20	4.8	10:21	12.6	17:00	6.0	22:43	9.2	15	Tu.	4:38	7.6	10:24	12.2	18:11	3.7		
16	\$.	4:00	5.9	10:48	12.5	17:55	5.3			16	w.	1:19	10.1	5:45	8.6	11:11	12.1	19:22	3.1
17	M.	0:18	9.2	4:49	7.1	11:21	12.6	18:59	4.4	17	Th.	2:39	10.7	7:07	9.1	12:14	12.0	20:30	2.4
18	Tu.	1:44	9.6	6:00	8.2	12:04	12.7	20:02	3.5	18	F.	3:44	11.4	8:41	9.0	13:26	11.8	21:30	1.8
19	w.	2:59	10.3	7:18	9.0	12:52	12.8	21:01	$2 \cdot 5$	19	Sa.	4:35	12.0	9:53	8.6	14:39	11.7	22:22	1.6
20	Th.	4:06	11.2	8:38	9.5	13:43	12.8	21:55	1.6	20	\$.	5:18	12.5	10:54	7.8	15:49	11.7	23:09	1.6
21	F.	5:06	12.0	9:57	9.5	14:40	12.6	22:44	1.0	21	M.	5:59	12.8	11:47	6.9	16:56	11.7	23:53	1.8
22	Sa.	5:59	12.7	11:06	9.2	15:41	12.5	23:30	0.7	22	Tu.	6:38	13.0	12:36	6.0	18:00	11.6		• • • • •
23	\$.	6:44	13.2	12:05	8.6	16:44	12.2			23	w.	0:36	2.5	7:15	13.0	13:22	5.1	19:01	11.4
24	M.	0:14	0.7	7:23	13.5	12:56	7.9	17:48	11.9	24	Th.	1:18	3.2	7:50	12.9	14:06	4.3	20:00	11.2
25	Tu.	0:57	1.0	8:00	13.7	13:46	7.0	18:52	11.5	25	F.	1:59	4.1	8:24	12.7	14:49	3.8	20:58	10.9
26	w.	1:39	1.7	8:36	13.7	14:36	6.2	19:57	10.9	26	Sa.	2:39	5.1	8:57	12.3	15:33	3.5	21:58	10.7
27	Th.	2:20	2.7	9:11	13.5	15:27	5.5	21:03	10.5	27	\$.	3:20	6.2	9:31	12.0	16:20	3.4	23:03	10.5
28	F.	3:00	3.9	9:45	13.2	16:19	4.9	22:10	10.0	28	M.	4:05	7.2	10:07	11.5	17:12	3.4		
29	Sa.	3:39	5.2	10:20	12.9	17:14	4.5	23:21	9.7										
30	\$.	4:22	6.5	10:57	12.5	18:15	4.0												
31	M.	0:39	9.7	5:18	7.7	11:36	12.0	19:20	3.6										
		1				•				1									

The Height is in feet and tenths of a foot, above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

The tide in English bay and False creek is practically the same as in the Sand Heads tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page 5.

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Date.	M.]	MAR	CH.				ste.	w.				API	RIL.			
Ä	Day	Time	. H't	Time.	.H't	Time	H't	Time	. H't	Dat	Day	Time	. H't	Time	H't	Time	H't	Γime	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	. FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Tu.	0:14	10.3	5:01	8.1	10:47	11.0	18:14	3.5	1	F.	1:48	11.1	7:56	8.0	12:00	8.81	9:17	3.9
2	w.	1:30	10.5	6:18	8.6	11:33	10.5	19:24	3.4	2	Sa.	2:40	11.3	9:01	7.4	13:24	8.7 2	0:18	4.1
3	Th.	2:40	10.8	7:56	8.7	12:28	10.1	20:22	3.3	3	5.	3:21	11.4	9:45	6.7	14:37	8.92	1:09	4.2
4	F.	3:36	11.2	9:11	8.5	13:32	9.8	21:11	3.2	4	M.	3:55	11.5	10:19	6.1	15:38	9.3 2	1:54	4.5
5	Sa.	4:18	11.6	10:06	8.0	14:39	9.8	21:54	3.2	5	Tu.	4:25	11.5	10:52	5.5	16:31	9.82	2:36	4.9
6	S .	4:55	11.8	10:49	7.5	15:40	9.9	22:34	3.3	6	w.	4:53	11.4	11:24	4.8	17:20	10.32	3:17	5.3
7	M.	5:28	11.8	11:26	7.0	16:32	10.1	23:12	3.5	7	Th.	5:20	11.3	11:57	4.1	18:08	10.82	3:57	5.7
8	Tu.	5:57	11.7	12:00	6.5	17:18	10.4	23:48	3.8	8	F.	5:46	11.3	12:31		18:56			
9	w.	6:23	11.6	12:33		18:03				9	Sa.	0:36	6.2					9:46	
10]	Th.	0:23	4.2	6:46	11.6	13:05	5.2	18:50	10.8	10	5.	1:16	6.7			13:45		0:39	
11	F.	0:57	4.6	7:07	11.6	13:38	4.5	19:41	10.9	11	M.	1:58	7.1					1:35	
12	Sa.	1:32		7:27				20:35		12	Tu.	2:45		7:34				2:32	
13	5.	2:09	5.8					21:32		13	w.	3:40	8.0					3:31	
14	M.	2:48	6.6					22:35			Th.	4:46		9:12					
15	Tu.	3:33	7.4					23:43			F.			6:05		10:28	-	8:04	
16	w.	4:31		9:36						16	Sa.			7:32		12:17	9.41		3.3
17	Th.			5:46		10:41				17	5.			8:43		13:49	9.42		3.8
18	F.			7:25		12:06			į	18	M.			9:39		15:08	9.82		4.3
19	Sa.			8:46		13:33				19	Tu.			10:27		16:18			5.0
20	5.			9:49		14:52			2.7		W.			11:10		17:20			5.6
21	M.			10:40		16:03			3.1	21	Th.			11:51		18:17			
22	Tu.			11:27		17:10					F.			12:30		19:11			
23	w.			12:11		18:10				23	Sa.	0:39		6:01			1.32		
24	Th.	0:17		6:23				19:07			Sa.	1:23	7.3				1.22		
25	F.	0:59	5.0			13:34		20:02		25	M.	2:06	7.6					1:42	
26	Sa.	1:40	5.7			14:14		20:56		26	Tu.	2:51	7.8					2:30	
27	S.	2:21	6.4			14:54		21:50			W.	3:42	8.0			15:33		3:17	
28	M.	3:03	7.1			15:35		22:46			Th.	4:45	8.0			16:11		0.54	
29	Tu.	3:49	7.7			16:19		23:45			F.		11.7			9:48		6:54	
30	W.	4:51	8.1	9:43		17:11				30	Sa.	0:48	11.7	7:18	7.3	11:30	8.0	7:50	4.2
31	Th.	0:46	11.1	6:16	8.3	10:42	9.3	18:12	3.6										

The Height is in feet and tenths of a foot, above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

The tide in English bay and False creek is practically the same as in the Sand Heads tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page 5.

te.	V.				ΜA	Y.				te.	· X				JUI	NE.			
Date.	Day.	Time. I	H't	Time.	H't	Time	. H't	Time	. H't	Date.	Day	Time	H't	Time	H't	Time.	H't	Time	. H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м	. FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	\$.	1:31 11	1.6	8:24	6.6	13:04	8.0	19:01	4.8	1	w.	1:42	11.8	9:06	4.3	15:11	9.1	20:01	7.0
2	M.	2:10 11	1.6	9:12	5.8	14:22	8.4	20:06	5.4	2	Th.	2:13	11.8	9:45	3.3	16:16	9.9	21:06	7.6
3	Tu.	2:47 11	1.5	9:46	5.0	15:27	9.1	21:00	5.8	3	F.	2:45	11.9	10:23	2.4	17:13	10.7	22:07	8.2
4	w.	3:20 1	1.5	10:16	4.2	16:24	9.8	21:49	6.3	4	Sa.	3:18	12.0	11:02	1.5	18:05	$11 \cdot 5$	23:03	8.5
5	Th.	3:50 1	1.5	10:48	3.4	17:17	10.5	22:37	6.8	5	\$.	3:52	12.1	11:42	0.8	18:55	12 · 1	23:58	8.7
6	F.	4:18 1	1.5	11:24	2.6	18:08	11.1	23:25	7.3	6	M.	4:32	12.1	12:23	0.2	19:44	12.5		
7	Sa.	4:45 1	1.6	12:03	1.8	18:58	11.7			7	Tu.	0:52	8.8	5:18	11.9	13:05	-0.1	20:32	[12.9
8	S.	0:14	7.7	5:13	11.7	12:44	1.1	19:47	12.1	8	w.	1:45	8.5	6:10	11.6	13:48	0.0	21:18	13.1
9	M.	1:03 8	8.0	5:43	11.7	13:26	0.7	20:37	12.3	9	Th.	2:39	8.1	7:08	11.0	14:30	0.5	22:02	13.1
10	Tu.	1:53	8-2	6:18	11.6	14:08	0.5	21:27	12.5	10	F.	3:36	7.6	8:14	10.2	15:13	1.3	22:45]	13.0
11	W.	2:45 8	8.2	7:01	11.2	14:51	0.7	22:18	12.5	11	Sa.	4:41	7.0	9:30	9.4	15:58	2.5	23:27	12.8
12	Th.	3:43	8.2	7:56	10.6	15:37	1.2	23:08	12.4	12	S.	5:51	6.2	10:54	8.8	16:48	3.9		
13	F.	4:50	7.8	9:12	9.7	16:28	2.1	23:57	12.4	13	M.	0:08	12.6	6:59	5.1	12:24	8.6	17:49	[5.3
14	Sa.	6:05	7.2	10:42	9.0	17:26	3.2			14	Tu.	0:49	12.4	8:02	3.9	13:57	8.9	18:59	6.5
15	\$.	0:45 12	2.3	7:23	6.2	12:18	8.7	18:32	4.2	15	w.	1:29	12.2	8:58	2.9	15:27	9.6	20:13	17.5
16	M.	1:32 13	2.2	8:28	5.0	13:56	8.8	19:43	5.2	16	Th.	2:08	12.1	9:47	2.0	16:41	10 · 4	21:21	8.2
17	Tu.	2:16 12	2.2	9:21	3.7	15:21	9.5	20:51	6.1	17	F.	2:46	11.9	10:31	1.4	17:38	11.2	22:22	8.7
18	W.	2:56 12	2.2	10:07	2.7	16:30	10.2	21:51	6.8	18	Sa.	3:23	11.7	11:11	1.0	18:27	11.8	23:20	18.9
19	Th.	3:32 12	2.1	10:49	1.8	17:27	10.9	22:44	7.4	19	\$.	3:59	11.3	11:47	0.8	19:08	12.2		
20	F.	4:06 1	1.8	11:29	1.3	18:19	11.5	23:33	7.9	20	M.	0:13	8.9	4:35	11.0	12:21	0.8	19:46	12.5
21	Sa.	4:39 1	1.6	12:06	0.9	19:08	12.0			21	Tu.	1:01	8.8	5:12	10.7	12:54	1.0	20:22	12.6
22	€.	0:20 8	8.3	5:11	11.2	12:41	0.8	19:54	12.3	22	w.	1:45	8.5	5:51	10.3	13:26	1.2	20:56	12.7
23	M.	1:06	8.5	5:42	10.9	13:15	0.8	20:37	12.5	23	Th.	2:27	8.1	6:33	9.9	13:57	1.6	21:27	12.6
24	Tu.	1:52 8	8-4	6:14	10.5	13:48	1.0	21:18	12.6	24	F.	3:08	7-7	7:18	9.5	14:27	2.1	21:57	12.5
25	w.	2:39	8.3	6:48	10.0	14:20	1.3	21:58	12.5	25	Sa.	3:50	7.3	8:09	9.1	14:59	2.8	22:27	12.2
26	Th.	3:28	8.1	7:26	9.5	14:53	1.8	22:38	12.4	26	S.	4:39	6.9	9:18	8.6	15:34	3.7	22:58	12.0
27	F.	4:20	7.8	8:13	8.9	15:28	2.6	23:18	12.2	27	M.	5:34	6.3	10:41	8.3	16:14	4.7	23:30	12.0
28	Sa.	5:21	7.4	9:18	8.3	16:08	3.4	23:57	12.0	28	Tu.	6:30	5.7	12:06	8.3	17:02	5.9		
29	\$.	6:29	6.8	11:07	7.8	16:55	4.3			29	w.	0:01	11.9	7:24	4.8	13:30	8.6	18:02	6.9
30	M.	0:35 1	1.8	7:33	6.0	12:38	7.9	17:51	5.3	30	Th.	0:33	11.9	8:16	3.9	14:48	9.3	19:13	7.9
31	Tu.	1:10 1:	1.8	8:24	5.2	13:58	8.3	18:54	6.2				`						
-		1				1		1				1		1					

The Height is in feet and tenths of a foot above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

The tide in English bay and False creek is practically the same as in the Sand Heads tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page 5.

Date.	y.				JUI	LY.				te.	y.			A	LUG'	UST.			
E D	Day.	Time.	H't	Time.	H't	Time	H't	Time	. H't	Date.	Day	Time	. H't	Time	H't	Time.	H't	Time	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	F.	1:08	12.1	9:06	2.8	15:58	10 · 1	20:27	8.5	1	M.	2:15	12.0	10:16	1.2	17:26	10.8	22:35	8.6
2	Sa.	1:46	12.3	9:53	1.9	16:58	11.0	21:36	8.9	2	Tu.	3:16	12.0	11:02	0.8	18:09	$12 \cdot 3$	23:34	8.1
3	á.	2:28	12.3	10:38	1.1	17:52	11.7	22:43	9.0	3	w.	4:18	11.8	11:47	0.7	18:50	$12 \cdot 6$		
4	M.	3:17	12.3	11:22	0.5	18:41	12.3	23:46	8.9	4	Th.	0:26	7.3	5:22	11.7	12:31	0.9	19:30	12.8
5	Tu.	4:14	12.1	12:07	0.1	19:27	12.8			5	F.	1:15	6.4	6:27	11.4	13:14	1.4	20:09	12.9
6	W.	0:43	8.5	5:15	11.9	12:51	0.0	20:10	13 · 1	6	Sa.	2:03	5.6	7:32	11 · 1	13:56	$2 \cdot 3$	20:46	12.8
7	Th.	1:36	7.9	6:18	11.5	13:35	0.3	20:50	13.3	7	\$.	2:52	4.9	8:38	10.7	14:39	3.4	21:22	12.6
8	F.	2:28	7.2	7:24	10.9	14:18	1.0	21:29	13.3	8	M.	3:43	4.3	9:45	10.3	15:24	4.6	21:58	12.3
9	Sa.	3:21	6.5	8:32	10.3	15:00	2.1	22:07	13 - 1	9	Tu.	4:39	3.9	10:56	9.9	16:13	5.9	22:36	12.0
10	\$.	4:16	5.8	9:44	9.7	15:42	3.4	22:44	12.8	10	w.	5:42	3.5	12:11	9.7	17:10	$7 \cdot 1$	23:16	11.5
11	M.	5:17	5.0	11:01	9.2	16:27	4.9	23:22	12.5	11	Th.	6:48	3.2	13:29	9.9	18:16	8.1	23:59	11.1
12	Tu.	6:26	4.2	12:22	9.0	17:21	6.2			12	F.	7:50	2.9	14:46	10.3	19:32	8.6		
13.	w.	0:02	12-2	7:34	3 · 4	13:48	9.2	18:27	7.5	13	Sa.	0:48	10.8	8:46	$2 \cdot 6$	15:52	10.9	20:56	8.7
14	Th.	0:44	11.9	8:31	2.7	15:16	9.8	19:42	8.4	14	S .	1:44	10.5	9:35	2.4	16:46	11.3	22:05	8.5
15	F.	1:28	11.7	9:21	$2 \cdot 1$	16:31	10.7	21:01	8.8	15	M.	2:44	10.3	10:18	2.3	17:28	11.7	22:58	8.0
16	Sa.	2:14	11.4	10:06	1.7	17:30	11.3	22:13	9.0	16	Tu.	3:37	10.2	10:56	2.4	18:01	11.8	23:39	$7 \cdot 6$
17	á.	2:59	11.2	10:46	$1 \cdot 4$	18:12	11.8	23:11	8.9	17	W.	4:26	10.2	11:32	2.5	18:31	11.8		
18	M.	3:42	10.9	11:23	1.4	18:46	12.1	23:58	8.7	18	Th.	0:15	$7 \cdot 1$	5:13	10 · 1	12:07	2.7	18:59	11.8
19	Tu.	4:24	10.7	11:57	$1 \cdot 5$	19:17	12.3			19	F.	0:49	6.7	5:59	10.3	12:40	3.1	19:25	11.7
20	W.	0:40	.8.3	5:06	10.4	12:29	1.6	19:47	12.3	20	Sa.	1:22	6.2	6:45	10.3	13:12	3.5	19:50	11.6
21	Th.	1:19	7.8	5:50	10 · 1	13:00	1.9	20:16	12.3	21	\$.	1:55	5.7	7:31	10.2	13:43	$4 \cdot 0$	20:13	11.5
22	F.	1:57	7.4	6:35	10.0	13:30	2.3	20:44	12.2	22	M.	2:29	5.2	8:19	10.2	14:13	4.6	20:34	11-4
23	Sa.	2:34	6.9	7:22	9.8	14:01	2.8	21:11	12.1	23	Tu.	3:04	4.6	9:11	10.1	14:44	5.4	20:54	11-4
24	\$.	3:11	6.5	8:15	9.5	14:34	3.5	21:37	11.9	24	W.	3:42	4.2	10:11	9.9	15:24	6.3	21:18	11.5
25	M.	3:49	6.0	9:16	9.2	15:09	4.4	22:02	11.8	25	Th.	4:30	3.9	11:23	9.8	16:17	7-2	21:50	11.5
26	Tu.	4:32	$5 \cdot 5$	10:26	9.0	15:49	5 · 4	22:29	11.8	26	F.	5:30	3.6	12:45	9.9	17:24	8.0	22:40	11.5
27	W.	5:22	4.9	11:44	8.9	16:32	6.5	22:59	11.8	27	Sa.	6:39	3.2	14:00	10.4	18:41	8.5	23:46	11.3
28	Th.	6:23	4.3	13:06	9 · 1	17:28	7.5	23:35	11.9	28	\$.	7:49	2.7	15:06	10.9	20:06	8.5		
29	F.	7:28	3.5	14:26	9.7	18:43	8 - 4			29	M.	1:04	11.2	8:55	2.2	16:02	11.4	21:22	8.1
30	Sa.	0:22	12.0	8:30	2.7	15:37	10.4	20:08	8.7	30	Tu.	2:21	11.2	9:52	1.9	16:49	11.8	22:24	7.3
31	€.	1:17	12.1	9:27	1.8	16:36	11.2	21:27	8.9	31	W.	3:32	11.3	10:43	1.9	17:30	12.1	23:17	6.4
	1	-				1		1		-	·	-							

The Height is in feet and tenths of a foot, above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

 $78019 - 2\frac{1}{2}$

The tide in English bay and False creek is practically the same as in the Sand Heads tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page 5.

Day.			ST															
Da				PTE	MBE	R.			te.	у.			0	CTO	BER.			
	Time.	H't	Time	. H't	Time	. H't	Time	. H't	Date.	Day	Time	. H't	Time	. H't	Time	H't	Time	.H't
	н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м	FT.
Th.	4:37	11.5	11:31	2.1	18:08	12.3			1	Sa.	5:48	11.7	11:52	4.7	17:53	12.2		
F.	0:05	$5 \cdot 5$	5:39	11.6	12:16	2.6	18:44	12.4	2	5 .	0:29	2.8	6:46	11.9	12:38	5.4	18:26	12.0
Sa.	0:51	4.6	6:40	11.6	12:59	3.2	19:19	12.4	3	M.	1:09	2.2	7:43	12.0	13:23	6.0	18:58	11.8
S .	1:36	3.8	7:40	11-4	13:41	4.0	19:53	12.2	4	Tu.	1:49	1.8	8:39	12.1	14:08	6.7	19:31	11.4
M.	2:21	3.2	8:41	11.3	14:23	5.0	20:27	11.9	5	w.	2:30	1.8	9:34	12.0	14:54	7.2	20:06	10.9
Tu.	3:07	. 2.9	9:41	11.1	15:07	6.0	21:02	11.6	6	Th.	3:12	1.9	10:29	11.8	15:43	7.7	20:43	10.4
w.	3:55	2.8	10:43	10.9	15:55	6.9	21:40	11.1	7	F.	3:56	2.3	11:25	11.7	16:44	8.1	21:25	9.7
Th.	4:46	2.9	11:48	10.7	16:54	7.7	22:25	10.6	8	Sa.	4:45	3.0	12:23	11.6	18:13	8.1	22:31	9.1
F.	5:44	3.1	12:56	10.7	18:11	8.3	23:18	10.0	9	S.	5:41	3.6	13:20	11.6	19:41	7.7	23:57	8.6
Sa.	6:52	3.3	14:05	10.9	19:46	8.3			10	M.	6:43	4.1	14:09	11.6	20:44	7.0		
\$.	0:22	9.6	8:01	3.4	15:06	11.1	21:00	7.9	11	Tu.	1:18	8.5	7:48	$4 \cdot 5$	14:51	11.6	21:29	6.3
M.	1:33	9.3	8:56	3.4	15:53	11.4	21:54	7.3	12	w.	2:30	8.8	8:47	4.8	15:26	11.6	22:05	5.6
Tu.	2:42	9.4	9:40	3.5	16:31	11.5	22:35	6.7	13	Th.	3:34	9.2	9:36	5 ·2	15:58	11.5	22:38	5.0
W.	3:42	9.6	10:21	3.6	17:04	11.5	23:11	6.2	14	F.	4:30	9.8	10:19	5.6	16:27	11-4	23:10	4.4
Th.	4:34	9.9	11:00	3.9	17:33	11.5	23:44	5.7	15	Sa.	5:19	10.4	10:59	6.0	16:54	11-4	23:41	3.8
F.	5:22	10.2	11:37	4.2	17:59	11.3			16	\$.	6:05	10.9	11:38	6.5	17:19	11.3		
Sa.	0:16	5.2	6:08	10.5	12:13	4.7	18:23	11.2	17	M.	0:13	3.2	6:50	11.4	12:18	6.9	17:42	11.3
S.	0:47	4.7	6:53	10.8	12:48	5.1	18:46	11.2	18	Tu.	0:46	2.7	7:36	11.7	13:00	7.3	18:04	11.3
M.	1:18	4.1	7:39	11.0	13:23	5.6	19:08	11.2	19	w.	1:21	2.1	8:24	11.9	13:44	7.7	18:28	11.4
Tu.	1:50	3.6	8:27	11.0	13:59	6.2	19:29	11.2	20	Th.	1:59	1.8	9:14	12.0	14:31	8.0	18:56	11.4
w.	2:25	3.2	9:17	11.0	14:38	6.7	19:51	11.3	21	F.	2:40	1.7	10:06	12.0	15:22	8.3	19:36	11.1
Th.	3:04	2.8	10:14	10.9	15:22	7.4	20:18	11.2	22	Sa.	3:25	1.8	10:59	12.0	16:19	8.4	20:33	10.6
F.	3:50	2.7	11:17	10.8	16:14	8.0	21:02	11.0	23	\$.	4:16	2.3	11:54	12.0	17:32	8.3	21:52	9.9
Sa.	4:46	2.8	12:21	10.9	17:21	8.4	22:08	10.7	24	M.	5:17	2.9	12:50	12.0	18:57	7.6	23:38	9.4
S.	5:53	2.9	13:25	11.1	18:46	8.3	23:32	10.3	25	Tu.	6:30	3.7	13:43	12.1	20:10	6.6		
M.	7:08	3.0	14:25	11.4	20:12	7.7			26	w.	1:18	9.4	7:46	4.3	14:31	12.2	21:09	5.3
Tu.	1:06	10.1	8:20	3.1	15:17	11.8	21:23	6.7	27	Th.	2:46	9.8	8:52	4.9	15:14	12.3	22:00	4.1
w.	2:30	10.4	9:22	3.2	16:04	12.0	22:19	5.7	28	F.	4:00	10.5	9:49	5.6	15:53	12.4	22:46	3.0
Th.	3:43	10.7	10:16	3.5	16:44	12.2	23:06	4.6	29	Sa.	5:02	11.2	10:41	6.3	16:29	12.3	23:28	2.2
F.	4:48	11.2	11:05	4.0	17:19	12.1	23:48	3.6	30	\$.	5:58	11.8	11:31	6.9	17:02	12-1		
									31	M.	0:08	1.5	6:52	12.3	12:20	7.4	17:34	11.8
	F. Sa. S. M. Tu. W. Th. Tu. W. Th. Tu. W. Th.	Th. 4:37 F. 0:05 Sa. 0:51 Sb. 1:36 M. 2:21 Tu. 3:07 W. 3:55 Th. 4:46 F. 5:44 Sa. 6:52 Sb. 0:22 M. 1:33 Tu. 2:42 W. 3:42 Th. 4:34 F. 5:22 Sa. 0:16 Sb. 0:47 M. 1:18 Tu. 1:50 W. 2:25 Th. 3:50 Sa. 4:46 Sb. 5:53 M. 7:08 Tu. 1:06 W. 2:30 Th. 3:43	Th. 4:37 11·5 F. 0:05 5·5 Sa. 0:51 4·6 S. 1:36 3·8 M. 2:21 3·2 Tu. 3:07 ·2·9 W. 3:55 2·8 Th. 4:46 2·9 F. 5:44 3·1 Sa. 6:52 3·3 S. 0:22 9·6 M. 1:33 9·3 Tu. 2:42 9·4 W. 3:42 9·6 Th. 4:34 9·9 F. 5:22 10·2 Sa. 0:16 5·2 Sa. 0:16 5·2 Sa. 0:47 4·7 M. 1:18 4·1 Tu. 1:50 3·6 W. 2:25 3·2 Th. 3:04 2·8 F. 3:50 2·7 Sa. 4:46 2·8 S. 5:53 2·9 M. 7:08 3·0 Tu. 1:06 10·1 W. 2:30 10·4 Th. 3:43 10·7	Th. 4:37 11·5 11:31 F. 0:05 5·5 5:39 Sa. 0:51 4·6 6:40 ≸. 1:36 3·8 7:40 M. 2:21 3·2 8:41 Tu. 3:07 2·9 9:41 W. 3:55 2·8 10:43 Th. 4:46 2·9 11:48 F. 5:44 3·1 12:56 Sa. 6:52 3·3 14:05 ≸. 0:22 9·6 8:01 M. 1:33 9·3 8:56 Tu. 2:42 9·4 9:40 W. 3:42 9·6 10:21 Th. 4:34 9·9 11:00 F. 5:22 10·2 11:37 Sa. 0:16 5·2 6:08 ≸. 0:47 4·7 6:53 M. 1:18 4·1 7:39 Tu. 1:50 3·6 8:27 W. 2:25 3·2 9:17 Th. 3:04 2·8 10:14 F. 3:50 2·7 11:17 Sa. 4:46 2·8 12:21 ≸. 5:53 2·9 13:25 M. 7:08 3·0 14:25 Tu. 1:06 10·1 8:20 W. 2:30 10·4 9:22 Th. 3:43 10·7 10:16	Th. 4:37 11·5 11:31 2·1 F. 0:05 5·5 5:39 11·6 Sa. 0:51 4·6 6:40 11·6 S. 1:36 3·8 7:40 11·4 M. 2:21 3·2 8:41 11·3 Tu. 3:07 2·9 9:41 11·1 W. 3:55 2·8 10:43 10·9 Th. 4:46 2·9 11:48 10·7 F. 5:44 3·1 12:56 10·7 Sa. 6:52 3·3 14:05 10·9 S. 0:22 9·6 8:01 3·4 M. 1:33 9·3 8:56 3·4 Tu. 2:42 9·6 10:21 3·6 Th. 4:34 9·9 11:00 3·9 F. 5:22 10·2 11:37 4·2 Sa. 0:16 5·2 6:08 10·5 S. 0:47 4·7 6:53 10·8 M. 1:18 4·1 7:39 11·0 Tu. 1:50 3·6 8:27 11·0 W. 2:25 3·2 9:17 11·0 Th. 3:04 2·8 10:14 10·9 F. 3:50 2·7 11:17 10·8 Sa. 4:46 2·8 12:21 10·9 S. 5:53 2·9 13:25 11·1 M. 7:08 3·0 14:25 11·4 Tu. 1:06 10·1 8:20 3·1 W. 2:30 10·4 9:22 3·2 Th. 3:43 10·7 10:16 3·5	Th. 4:37 11·5 11:31 2·1 18:08 F. 0:05 5·5 5:39 11·6 12:16 Sa. 0:51 4·6 6:40 11·6 12:59 S. 1:36 3·8 7:40 11·4 13:41 M. 2:21 3·2 8:41 11·3 14:23 Tu. 3:07 ·2·9 9:41 11·1 15:07 W. 3:55 2·8 10:43 10·9 15:55 Th. 4:46 2·9 11:48 10·7 16:54 F. 5:44 3·1 12:56 10·7 18:11 Sa. 6:52 3·3 14:05 10·9 19:46 S. 0:22 9·6 8:01 3·4 15:06 M. 1:33 9·3 8:56 3·4 15:53 Tu. 2:42 9·4 9:40 3·5 16:31 W. 3:42 9·6 10:21 3·6 17:04 Th. 4:34 9·9 11:00 3·9 17:33 F. 5:22 10·2 11:37 4·2 17:59 Sa. 0:16 5·2 6:08 10·5 12:13 S. 0:47 4·7 6:53 10·8 12:48 M. 1:18 4·1 7:39 11·0 13:23 Tu. 1:50 3·6 8:27 11·0 13:59 W. 2:25 3·2 9:17 11·0 14:38 Th. 3:04 2·8 10:14 10·9 15:22 F. 3:50 2·7 11:17 10·8 16:14 Sa. 4:46 2·8 12:21 10·9 17:21 S. 5:53 2·9 13:25 11·1 18:46 M. 7:08 3·0 14:25 11·4 20:12 Tu. 1:06 10·1 8:20 3·1 15:17 W. 2:30 10·4 9:22 3·2 16:04 Th. 3:43 10·7 10:16 3·5 16:44	Th.	Th.	Th.	Th.	Th. 4:37 11-5 11:31 2-1 18:08 12-3	Th. 4:37 11·5 11:31 2·1 18:08 12·3	Th. 4:37 11·5 11:31 2·1 18:08 12·3	Th. 4:37 11·5 5:39 11·6 12:16 2·6 18:44 12·4 2 5.6 5:39 11·6 12:16 2·6 18:44 12·4 2 5.6 5:48 11·7 11·5 6:46 3·8	Th. 4.37 11.5 11.31 2.1 18.08 12.3	Th. 4:37 11.5 1:31 2:1 1:808 12-3	Th. 4:37 11:5 11:31 2:1 18:08 12:3	Th. 4:37 11.5

The HEIGHT is in feet and tenths of a foot, above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

The tide in English bay and False creek is practically the same as in the Sand Heads tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page 5.

-									1	-									
te.	у.			NO	VE	IBER	2.			te.	у.			DI	ECEI	MBER	•		
Date.	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't	Date.	Day	Time.	H't	Time.	H't	Time.	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Tu.	0:47	1.1	7:44	12.6	13:08	7.8	18:06	11.5	1	Th.	1:00	0.9	8:25	13.3	13:45	8.9	17:56	10.9
2	W.	1:25	1.0	8:35	12.8	13:56	8.1	18:39	11.1	2	F.	1:36	1.1	9:06	13.3	14:33	8.7	18:35	10.5
3	Th.	2:02	1.2	9:24	12.8	14:45	8.3	19:13	10.6	3	Sa.	2:11	1.6	9:46	13.4	15:22	8.4	19:21	9.9
4	F.	2:38	1.5	10:12	12.8	15:37	8.3	19:49	9.9	4	S.	2:45	2.2	10:24	13.2	16:13	8.0	20:18	9.2
5	Sa.	3:15	2.1	10:59	12.7	16:38	8.2	20:35	9.3	5	M.	3:18	2.9	11:01	13.0	17:09	7.5	21:28	8.6
6	5.	3:54	2.8	11:44	12.5	17:50	7.8	21:51	8.6	6	Tu.	3:53	3.9	11:37	12.8	18:11	6.9	22:52	8.2
7	M.	4:36	3.7	12:27	12.3	19:05	7.2	23:28	8.1	7	w.	4:32	4.9	12:12	12.5	19:14	6.2		
8	Tu.	5:27	4.6	13:08	12.1	20:07	6.5			8	Th.	0:24	8.2	5:22	6.0	12:46	12.4	20:06	5.5
9	w.	0:58	8.1	6:30	5.4	13:46	12.0	20:56	5.7	9	F.	1:51	8.6	6:23	6.9	13:18	12.3	20:48	4.6
10	Th.	2:16	8.5	7:34	6.1	14:21	12.0	21:33	4.9	10	Sa.	3:06	9.4	7:30	7.8	13:49	12.2	21:27	3.8
11	F.	3:24	9.2	8:33	6.7	14:53	11.8	22:06	4.1	11	\$.	4:10	10.2	8:38	8.5	14:19	12.2	22:05	2.9
12	Sa.	4:23	10.0	9:30	7.3	15:22	11.8	22:38	3.5	12	M.	5:06	11.1	9:43	9.0	14:50	12.4	22:43	2.1
13	5.	5:14	10.8	10:23	7.8	15:48	11.8	23:11	2.8	13	Tu.	5:56	11.9	10:44	9.4	15:23	12.4	23:22	1.4
14	M.	6:02	11.4	11:10	8.3	16:13	11.8	23:45	2.1	14	W.	6:42	12.5	11:42	9.6	16:01	12.4		• • • • •
15	Tu.	6:49	12.0	11:56	8.6	16:38	11.9		• • • • •	15	Th.	0:02	0.9	7:26	12.9	12:37	9.6	16:44	12.3
16	W.	0:20	1.5	7:35	12.5	12:43	8.8	17:06	11.9	16	F.	0:43	0.6	8:09	13 · 4	13:29	9.2	17:34	12.0
17	Th.	0:57	1.1	8:21	12.8	13:32	8.8	17:44	11.8	17	Sa.	1:24	0.6	8:51	13.7	14:20	8.7	18:31	11.6
18	F.	1:36	0.9	9:08	12.9	14:24	8.8	18:31	11.5	18	\$.	2:06	0.9	9:32	13.7	15:12	8.1	19:36	10.9
19	Sa.	2:17	1.0	9:54	13 · 1	15:19	8.6	19:25	11.0	19	M.	2:48	1.7	10:12	13.7	16:07	7-4	20:52	10.2
20	5.	3:00	1.5	10:40	13.0	16:21	8.3	20:30	10.3	20	Tu.	3:31	2.8	10:51	13 - 5	17:08	6.7	22:17	9.5
21	M.	3:46	2.3	11:25	12.9	17:31	7.7	22:00	9.5	21	W.	4:17	4.2	11:31	13 - 2	18:15	5.7	23:48	9.1
22	Tu.	4:41	3.4	12:10	12.8	18:48	6.7	23:48	9.0	22	Th.	5:09	5-6	12:12	13.0	19:25	4.5		
23	W.	5:46	4.6	12:56	12.8	19:57	5.4			23	F.	:22	9.3	6:14	7-0	12:54	12.8	20:28	3.4
24	Th.	1:26	9.1	6:57	5.8	13:41	12.7	20:54	4.1	24	Sa.	2:55	10.0	7:31	8.2	13:36	12.8	21:19	2.5
25	F.	2:53	9.7	8:09	6.7	14:23	12.7	21:42	3.0	25	\$.	4:16	10.9	8:50	8.9	14:17	12.6	22:04	1.8
26	Sa.	4:07	10.7	9:15	7.6	15:02	12.7	22:24	2.1	26	M.	5:21	11.7	10:01	9.4	14:57	12.3	22:45	1.3
27	\$.	5:11	11.4	10:16	8.2	15:39	12 - 5	23:05	1.4	27	Tu.	6:11	12.4	11:03	9.6	15:37	11.9	23:24	1.1
28	M.	6:07	12.2	11:13	8.7	16:14	12.2	23:45	1.0	28	w.	6:52	12.9	11:58	9.8	16:18	11.6	3	
29	Tu.	6:57	12.7	12:06	9.0	16:48	11.8	3		29	Th.	0:01	1.1	7:29	13 - 5	12:47	9.2	17:00	11-1
30	w.	0:23	0.8	7:42	13 - 1	12:56	9.1	17:21	11.4	30	F.	0:35	1.4	8:04	13.4	13:32	8.8	17:44	10.8
										31	Sa.	1:08	1.6	8:38	13 - 4	14:15	8.4	18:30	10.4
		1		1		1		1		[]	1	1		1		1		1	

The HEIGHT is in feet and tenths of a foot above the Admiralty datum to which the soundings are referred on the chart of Vancouver harbour.

The tide in English bay and False creek is practically the same as in the Sand Hills tables, both in time and height. Data for Burrard inlet in relation to Vancouver, are given on page. 5.

-																			
te.	· X			J.	ANU	ARY				te.	у.			FE	BRU	JARY	. •		
Date.	Day	Time.	H't	Time.	H't	Time	. H't	Time	. H't	Date.	Day	Time	. H't	Time.	H't	Time.	H't	Time	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	Fr.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Sa.	4:14	6.4	10:57	13.5	18:06	4.7			1	Tu.	1:51	10.8	6:12	9.6	11:48	12.0	19:27	3.5
2	S.	0:36	9.9	5:12	7.9	11:38	13.2	19:04	3.9	2	w.	3:16	11.4	7:44	10.0	12:34	11.6	20:19	3.1
3	M.	2:16	10.5	6:24	9.1	12:21	12.8	19:58	3.2	3	Th.	4:11	12.0	9:10	10.0	13:24	11.2	21:04	2.8
4	Tu.	3:35	11.3	7:50	9.8	13:05	12.5	20:46	2.7	4	F.	4:50	12.4	10:08	9.7	14:16	11.0	21:44	2.6
5	w.	4:36	12.0	9:10	10.2	13:50	12.2	21:30	2.2	5	Sa.	5:20	12.7	10:49	9.3	15:07	10.9	22:22	2.5
6	Th.	5:20	12.7	10:13	10.2	14:35	11.9	22:10	1.9	6	S.	5:47	12.8	11:24	8.8	15:56	10.9	22:58	2.5
7	F.	5:53	13 · 1	11:01	10.0	15:19	11.6	22:46	1.8	7	M.	6:12	12.8	11:58	8.3	16:43	10.9	23:33	2.7
8	Sa.					16:02			1.8	8	Tu.			12:31		17:28			
9	S.					16:46			2.0	9	w.	0:07	3.0			13:05		18:14	
10	M.					17:30				10	Th.	0:40	3.6			13:39		18:59	
11	Tu.	0:26		7:48				18:15		11	F.	1:13	4.2			14:14			
12	W.	1:00		8:16				19:02		12	Sa.	1:47	5.1			14:51		20:42	
13	Th.	1:35		8:45				19:52			5.	2:22		8:47				21:50	
14	F.	2:11		9:15				20:52	9.8		M.	3:00		9:20				23:12	
15	Sa.	2:49		9:46				22:06	9.6		Tu.	3:46		10:00					
16	5. .	3:29		10:18				23:30			w.			4:49		10:48		19.21	
17	M.	4:16		10:53				25.00		17	Th.		11.0			11:47			
18	Tu.	1:00		5:17		11:33				18	F.		11.7			12:56			
19	W.			6:33		12:20			2.4	19	Sa.			9:14		14:09			1.4
20	Th.			8:02		13:15			1.4	20	Sa.			10:10		15:17			1.3
21	F.			9:18		14:13			0.7	21	M.			11:01		16:20			
								1											
22	Sa.			10:23		15:13 16:14				22	Tu. W.			11:50 12:38		17:19			
24	M.			12:13		17:14				24	Th.	0:22		6:59				19:16	
25	Tu.	0:25				13:05		18:14		25	F.	1:18		7:37				20:17	
	W.	0:48				13:56		19:14		26	Sa.			8:15					
26	Th.	1:33				14:46						2:03						21:20	
27								20:17			S.	2:50		8:52				22:27	
28	F.	2:19				15:38		21:23		28	M.	3:41	7.9	9:30	12.0	10:34	2.0	23:43	11.0
29	Sa.	3:07				16:33		22:40											
30	S.	3:58		10:23				10.90					`						
31	M.	0:11	10.4	4:56	8.6	11:05	12.5	18:30	3.9	!						1			

The Height is measured from the average level of the lowest Low Water in each month of the year.

TIDAL DIFFERENCES for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of SLACK WATER in the navigable passes and narrows, follow the Tide Tables.

	1	1								L									
Date.	y.				MAI	RCH.				te.	y.				API	RIL.			
Da	Day	Time.	H't	Time	e. H't	Time	e. H't	Tim	e. H't	Date.	Day	Time	e. H't	Time	e. H't	Time	. H't	Time	e. H't
		н. м.	FT.	н. м	. FT.	н. м	. FT	H. N	I. FT.			н. м	. FT.	H. M	. FT.	н. м	FT.	Н. М	I. FT.
1	Tu.	4:44	8.9	10:12	11.4	17:32	3.7			1	F.	1:21	11.7	7:39	8.5	11:44	9.1	18:34	4.2
2	W.	1:07	11.2	6:08	9.4	11:04	10.8	18:38	3.7	2	Sa.	2:11	11.8	8:40	7.9	12:57	9.1	19:35	4.4
3	Th.	2:24	$11 \cdot 5$	7:43	9.4	12:08	10.3	19:39	3.7	3	\$.	2:51	11.8	9:19	7.1	14:03	9.3	20:30	4.5
4	F.	3:18	11.8	9:00	9.0	13:16	10 · 1	20:30	3.6	4	M.	3:23	11.7	9:49	6.3	15:01	9.7	21:18	4.7
5	Sa.	3:56	12.0	9:44	8.5	14:16	10 · 1	21:13	3.4	5	Tu.	3:51	11.7	10:18	5.6	15:53	10.2	22:01	4.9
6	\$.	4:27	12.1	10:20	7.9	15:10	10.2	21:53	3.4	6	w.	4:18	11.7	10:46	4.8	16:42	10.7	22:41	5.3
7	M.	4:54	12.1	10:52	$7 \cdot 2$	16:00	10.5	22:31	3.5	7	Th.	4:44	11.7	11:16	4.1	17:28	11.2	23:19	5.8
8	Tu.	5:18	12.0	11:23	6.6	16:48	10.7	23:08	3.8	8	F.	5:09	11.7	11:48	3.4	18:13	11.6	23:56	6.3
9	W.	5:41	12.0	11:53	6.0	17:34	10.9	23:44	4.2	9	Sa.	5:35	11.9	12:23	2.7	18:59	12.0		
10	Th.	6:04	12.0	12:24	5.4	18:19	11.2			10	\$.	0:34	6.9	6:03	11.9	13:01	2.2	19:47	12.1
11	F.	0:19	4.8	6:28	12.1	12:56	4.7	19:03	11.3	11	M.	1:15	7.5	6:34	11.9	13:42	1.8	20:39	12.2
12	Sa.	0:53	5.5	6:54	12.1	13:31	4.1	19:49	11.4	12	Tu.	2:03	8.1	7:10	11.8	14:25	1.7	21:36	12.2
13	5.	1:28	6.2	7:22	12.1	14:11	3.6	20:41	11.3	13	w.	2:58	8.6	7:52	11.4	15:21	1.8	22:39	12.2
14	M.	2:06	7.0	7:53	12.1	14:56	3.2	21:44	11.2	14	Th.	4:06	8.8	8:46	10.9	16:12	2.2	23:46	12.2
15	Tu.	2:53	7.8	8:30	12.0	15:47	2.9	22:56	11.1	15	F.	5:29	8.7	10:01	10.2	17:14	2.8		
16	w.	3:54	8.6	9:15	11.7	16:45	2.8			16	Sa.	0:46	12.3	6:54	8.0	11:42		18:24	3.4
17	Th.	0:14 1	11.2	5:12	9.1	10:18	11.3	17:51	2.7	17	\$.	1:36	12.5	8:02	7.0	13:08	9.9	19:35	4.0
18	F.	1:22 1	1.5	6:45	9.0	11:38	11.0	19:00	2.7	18	M.	2:21	12.6	8:56	5.7	14:26	10.3	20:38	4.5
19	Sa.	2:21 1	2.0	8:04	8.4	13:03	10.9	20:05	2.6	19	Tu.	3:02	12.6	9:41	4.4	15:35	10.9	21:33	5.1
20	\$.	3:09 1	2.4	9:06	7.4	14:18	11.0	21:02	2.7	20	w.	3:40	12.7	10:22	3.3	16:36	11.5	22:24	5.8
21	M.	3:48 1	2.8	9;58	6.2	15:26	11.4	21:54	3.0	21	Th.	4:15	12.6	11:02	2.4	17:30	12.1	23:13	6.5
22	Tu.	4:25 1	2.9	10:43	5.1	16:28	11.8	22:43	3.6	22	F.	4:48	12.4	11:41	1.8	18:21	12.5		
23	w.	5:01 1	3.0	11:26	4.1	17:25	12.0	23:30	4.3	23	Sa.	0:01	7.2	5:20	12.2	12:19	1.4	19:11	12.7
24	Th.	5:36 1	2.9	12:08	3.3	18:20	12.2			24	\$.	0:50	7.8	5:53	11.9	12:57	1.3	20:00	12.8
25	F.	0:16	5.1	6:11	12.7	12:49	2.7	19:14	12.3	25	M.	1:40	8.3	6:28	11.5	13:36	1.5	20:50	12.8
26	Sa.	1:02	6 · 1	6:45	12.5	13:30	2.5	20:10	12.2	26	Tu.	2:33	8.6	7:05	10.9	14:17	1.9	21:41	12.6
27	\$.	1:49	7.0	7:18	12.1	14:12	2.4	21:08	12.1	27	w.	3:31	8.7	7:45	10.2	14:59	2.5	22:31	12.5
28	M.	2:38	7.8	7:52	11.6	14:56	2.6	22:08	11.9	28	Th.	4:35	8.6	8:34	9.5	5:43	3.2	23:21	12.3
29	Tu.	3:35	8.4	8:29	11.0	15:43	3.0	23:12	11.7	29	F.	5:48	8.3	9:47	8.8	6:32	3.9		
30	w.	4:45	8.8	9:18	10.3	16:34	3 · 4			30	Sa.	0:10	12.2	7:05	7.7	1:18		7:27	
31	Th.	0:19 1		6:10	8.9				3.9										

The Height is measured from the average level of the lowest Low Water in each month of the year.

TIDAL DIFFERENCES for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of Slack Water in the navigable passes and narrows, follow the Tide Tables.

										13								_
te.	y.			MA	Y.				te.	y.				JUI	NE.			
Date.	Day	Time. H't	Time	. H't	Time	. H't	Time	. H't	Date.	Day	Time	. H't	Time	. H't	Time	H't	Time.	H't
		H. M. FT.	н. м.	FT.	н. м.	FT.	н. м	. FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	5.	0:57 12.0	8:04	7.0	12:39	8.5	18:30	5.3	1	w.	1:14	12.1	8:26	4.5	14:45	9.5	19:32	7.4
2	M.	1:39 11.9	8:42	6.1	13:53	8.8	19:34	5.7	2	Th.	1:49	12.2	9:02	3.5	15:46	10.4	20:36	8.0
3	Tu.	2:15 11.8	9:11	5.2	14:58	9.4	20:31	6.1	3	F.	2:23	12.3	9:37	2.4	16:36	11.2	21:34	8.4
4	w.	2:48 11.8	9:39	4.3	15:54	10.2	21:20	6.5	4	Sa.	2:56	12.4	10:13	1.4	17:20	12.0	22:28	8.8
5	Th.	3:19 11.8	10:09	3.4	16:42	10 ·9	22:06	7.0	5	S.	3:31	12.5	10:50	0.6	18:03	12.7	23:21	9.0
6	F.	3:49 11.9	10:41	$2 \cdot 5$	17:27	11.6	22:51	7.4	6	M.	4:09	12.5	11:30	0.0	18:46	13.2		
7	Sa.	4:18 12.0	11:16	1.7	18:11	12.2	23:35	7.9	7	Tu.	0:13	9.1	4:53	12.4	12:14	-0.2	19:31	13.5
8	5.	4:48 12.1	11:54	1.0	18:56	12.6			8	w.	1:06	9.0	5:43	12.1	13:00	0.0	20:17	13.7
9	M.	0:20 8.3	5:21	12.1	12:35	0.6	19:42	12.9	9	Th.	2:02	8.8	6:38	11.6	13:47	0.6	21:04	13.9
10	Tu.	1:08 8.6	5:58	11.9	13:19	0.5	20:30	13.1	10	F.	3:02	8.3	7:40	10.9	14:35	1.5	21:52	13.8
11	w.	2:03 8.8	6:42	11.6	14:05	0.7	21:23	13.1	11	Sa.	4:07	7.6	8:52	10.1	15:25	2.8	22:39	13.6
12	Th.	3:06 8.7	7:34	11.0	14:53	1.3	22:20	13.1	12	\$.	5:15	6.7	10:15	9.4	16:18	4.3	23:25	13.4
13	F.	4:16 8.5	8:42	10.3	15:44	2.2	23:15	13.0	13	M.	6:19	5.7	11:50	9.2	17:17	5.8		
14	Sa.	5:31 7.8	10:07	9.6	16:42	3.3		• • • • •	14	Tu.	0:10	13.1	7:18	4.5	13:33	9.6	18:24	7.2
15	\$.	0:08 13.0	6:46	6.8	11:42	9.2	17:48	4.5	15	W.	0:52	12.9	8:11	3.4	15:01	10.3	19:38	8.2
16	M.	0:55 12.9	7:50	5.4	13:16	9.4	18:58	5.6	16	Th.	1:32	12.8	8:56	2.5	16:11	11.2	20:48	8.9
17	Tu.	1:36 12.8	8:42	4.2	14:40	10.1	20:05	6.5	17	F.	2:11	12.5	9:37	1.8	17:04	12.0	21:53	9.4
18	W.	2:14 12.7	9:24	3.1	15:51	10.9	21:08	7.2	18	Sa.	2:49	12.2	10:16	1.2	17:48	12.6	22:48	9.6
19	Th.	2:50 12.6	10:03	2.1	16:53	11.7	22:05	7.9	19	S.	3:27	11.9	10:53	1.0	18:27	12.9	23:38	9.6
20	F.	3:25 12.4	10:40	1.4	17:46	12.3	22:59	8.5	20	M.	4:07	11.6	11:29	0.9	19:03	13.1		• • • •
21	Sa.	4:00 12.2	11:16	0.9	18:32	12.8	23:52	-8.8	21	Tu.	0:26	9.5	4:48	11.3	12:04	1.1	19:38	13.2
22	\$.	4:36 11.9			19:14				22	W.	1:13	9.2			12:38		20:12	
23	M.	0:44 9.0	5:13	11.5	12:29	0.9	19:55	13.1	23	Th.	2:00	8.8	6:15	10.5	13:13	2.0	20:45	13.2
24	Tu.	1:35 9.1	5:51	11.1	13:07	1.2	20:35	13.2	24	F.	2:46	8.4	7:03	10.0	13:49	2.7	21:17	13 · 1
25	W.	2:25 8.9	6:31	10.6	13:44		21:16		25	Sa.	3:32	7.9	7:54	9.5	14:26	.3.5	21:49	12.9
26	Th.	3:16 8.7	7:14	9.9	14:22		21:57		26	\$.	4:19	7.4	8:53	9.1	15:04	4.4	22:21	12.8
27	F.	4:09 8.3	8:08	9.3	15:01		22:37		27	M.	5:07	6.8	10:08	8.7	15:44	5.4	22:54	12.5
28	Sa.	5:07 7.9			15:42		23:18		28	Tu.	5:56		11:34		16:29	6.5	23:29	12.4
29	\$.	6:11 7-2	10:40		16:29	5.0	23:58	12.3	29	w.	6:46	5.1	13:03	9.1	17:24	7.5	• • • • •	• • • •
30	M.	7:07 6:4	12:10	8.3	17:25	5.9		• • • • •	30	Th.	0:07	12.3	7:35	4.1	14:21	9.7	18:32	8-4
31	Tu.	0:37 12.2	7:49	5.5	13:32	8.7	18:27	6.8										

The HEIGHT is measured from the average level of the lowest Low Water in each month of the year.

Tidal Differences for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of Slack Water in the navigable passes and narrows, follow the Tide Tables.

Date.	Day.				JUI	LY.	,			Date.	ıy.				AUG	UST.			
Ä	Ã	Time	. H't	Time	. H't	Time	. H't	Time	. H't	De	Day	Time	. H't	Time	. H't	Time	. H't T	ime.	H't
		н. м	FT.	н. м.	FT.	н. м.	FT.	н. м.	. FT.			н. м.	FT.	н. м.	FT.	н. м.	FT. I	н. м.	FT.
1	F.	0:47	12.4	8:22	3.0	15:24	10.6	19:51	9.0	1	M.	1:46	12.4	9:23	1.1	16:39	12.4 21	1:52	9.0
2	Sa.	1:30	12.5	9:06	1.9	16:16	11.4	21:03	9.3	2	Tu.	2:47	12.6	10:11	0.7	17:19	13.0 22	2:47	8.5
3	\$.	2:16	12.7	9:49	0.9	17:01	12.2	22:07	9.3	3	W.	3:46	12.6	10:58	0.5	17:58	13 · 4 23	3:39	7.8
4	M.	3:05	12.8	10:32	0.3	17:45	12.9	23:04	9.2	4	Th.	4:45	12.5	11:44	0.8	18:36	13.7		
5	Tu.	3:56	12.7	11:16	-0.2	18:28	13.5	23:59	8.9	5	F.	0:30	6.9	5:45	12.3	12:29	1.4 19	9:13	13.8
6	w.	4:49	12.5	12:01	-0.2	19:10	13.8			6	Sa.	1:22	6.1	6:47	12.0	13:15	2.4 19	9:51	13.7
7	Th.	0:53	8.5	5:45	12.1	12:46	0.3	19:53	14.0	7	\$.	2:13	5.4	7:51	11.6	14:02	3.7 20	0:30	13.5
8	F.	1:48	7.8	6:44	11.7	13:32	1.1	20:35	14.1	8	M.	3:04	4.8	8:58	11.2	14:50	5.1 21	1:11	13.2
. 9	Sa.	2:44	7.1	7:48	11.1	14:19	2.3	21:17	14.0	9	Tu.	3:56	4.3	10:09	10.8	15:40	6.6 2	1:53	12.7
10	S.	3:42	6.3	8:58	10.5	15:07	3.8	22:00	13.7	10	w.	4:52	4.0	11:30	10.6	16:37	8.0 22	2:37	12.2
11	M.	4:42	5.5	10:19	9.9	15:57	5.4	22:43	13.4	11	Th.	5:51	3.8	13:00	10.8	17:50	9.0 23	3:24	11.7
12	Tu.	5:43	4.7	11:46	9.8	16:52	7.0	23:25	12.9	12	F.	6:54	3.4	14:28	11.2	19:21	9.5		
13	w.	6:45	4.0	13:24	10.1	17:56	8.3			13	Sa.	0:16	11.3	7:54	3.2	15:38	11.7 20	0:45	9.5
14	Th.	0:06	12.6	7:42	3.2	14:57	10.8	19:18	9.2	14	S.	1:14	11.0	8:47	2.9	16:26	12.0 21	1:45	9.2
15	F.	0:48	12.3	8:31	2.6	16:06	11.5	20:38	9.7	15	M.	2:09	10.8	9:29	2.7	16:57	12.3 22	2:30	8.8
16	Sa.	1:33	12.0	9:15	2.1	16:56	12.1	21:48	9.8	16	Tu.	3:00	10.8	10:06	2.7	17:24	12.4 23	3:06	8.2
17	S.	2:20	11.7	9:55	1.8	17:34	12.6	22:41	9.6	17	w.	3:49	10.8	10:42	2.7	17:50	12.3 23	3:39	7.7
18	M.	3:08	11.5	10:33	1.6	18:06	12.8	23:25	9.3	18	Th.	4:36	10.8	11:18	3.0	18:15	12.3		
19	Tu.	3:54	11.2	11:10	1.7	18:35	12.8			19	F.	0:11	7.1	5:21	10.9	11:55	3.3 18	8:39	12.2
20	w.	0:06	8.9	4:39	11.0	11:46	1.9	19:03	12.8	20	Sa.	0:43	6.7	6:05	10.9	12:31	3.8 19	9:04	12.2
21	Th.	0:45	8.5	5:24	10.8	12:21	2.2	19:30	12.8	21	5 .	1:16	6.2	6:51	10.9	13:06	4.5 19	9:30	12.2
22	F.	1:23	8.0	6:09	10.7	12:55	2.7	19:56	12.9	22	M.	1:51	5.7	7:39	10.9	13:40	5.2 19	9:57	12.1
23	Sa.	2:02	7.5	6:55	10.4	13:28	3.4	20:22	12.8	23	Tu.	2:29	5.2	8:30	10.7	14:15	6.1 20	0:25	12.0
24	S.	2:42	7.0	7:45	10.1	14:02	4.1	20:50	12.6	24	w.	3:10	4.7	9:27	10.5	14:52	7.0 20	0:55	12.0
25	M.	3:23	6.5	8:42	9.8	14:37	5.1	21:20	12.5	25	Th.	3:55	4.3	10:38	10.3	15:34	7.8 21	1:30	11.9
26	Tu.	4:06	5.9	9:46	9.5	15:14	6.1	21:54	12.4	26	F.	4:49	3.9	11:58	10.4	16:28	8.6 22	2:17	11.8
27	w.	4:54	5.3	11:02	9.4	15:56	7.1	22:32	12.3	27	Sa.	5:53	3.4	13:17	10.7	17:53	9.2 23	3:17	11.7
28	Th.	5:48	4.6	12:26	9.6	16:51	8.1	23:15	12.2	28	S .	7:03	2.9	14:25	11.3	19:31	9.2		
29	F.	6:45	3.8	13:53	10.1	18:04	8.9			29	M.	0:31	11.6	8:05	2.4	15:20	11.8 20	0:44	8.6
30	Sa.	0:01	12.3	7:41	2.8	15:05	10.8	19:29	9.4	30	Tu.	1:50	11.7	9:01	1.9	16:03	12.4 21	1:42	7.7
. 31	\$.	0:50	12.3	8:33	1.9	15:56	11.6	20:48	9.3	31	w.	2:59	12.0	9:51	1.8	16:41	12.9 22	2:31	6.9

The HEIGHT is measured from the average level of the lowest Low Water in each month of the year.

Tidal Differences for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of Slack Water in the navigable passes and narrows, follow the Tide Tables.

Date.	Day.			SE	PTE	MBE	R.			te.	у.			0	СТО	BER.			
	Н	Time.	H't	Time	H't	Time	. H't	Time	. H't	Date.	Day.	Time	. H't	Time	. H't	Time.	H't	Time	. H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	. FT.
~ 1	Th.	4:00	12.2	10:39	1.9	17:18	13.1	23:19	5.9	1	Sa.	5:06	12.5	11:08	4.7	17:08	13.0	23:39	3.0
2	F.	4:57	12.4	11:26	2.5	17:54	13.3			2	\$.	6:02	12.8	11:57	5.6	17:44	12.9		
3	Sa.	0:06	4.9	5:53	12.5	12:12	3.3	18:31	13.3	3	M.	0:21	2.4	6:57	13.0	12:47	6.4	18:21	12.6
4	S.	0:52	4.1	6:50	12.4	12:59	4.3	19:09	13 · 1	4	Tu.	1:04	2.1	7:51	13.0	13:38	7.2	18:59	$12 \cdot 2$
5	M.	1:38	3.6	7:49	12.2	13:47	5.4	19:47	12.8	5	W.	1:48	$2 \cdot 1$	8:46	12.9	14:31	7.9	19:38	11.7
6	Tu.	2:25	3.3	8:52	12.0	14:37	6.6	20:26	12.3	6	Th.	2:33	2.4	9:43	12.7	15:28	8.5	20:18	11.0
7	w.	3:13	3.2	10:00	11.7	15:30	$7 \cdot 7$	21:06	11.8	7	F.	3:19	2.8	10:44	12.5	16:32	8.8	21:03	10.3
8	Th.	4:03	3.3	11:14	11.6	16:34	8.6	21:49	11.2	8	Sa.	4:08	$3 \cdot 5$	11:47	12.3	17:51	8.8	22:08	9.6
9	F.	4:59	3.6	12:31	11.5	17:53	9.1	22:40	10.7	9	5.	5:05	4 · 1	12:47	12.2	19:23	8.3	23:28	9.1
10	Sa.	6:04	3.8	13:44	11.7	19:28	9.1	23:47	10 · 1	10	M.	6:08	4.7	13:39	12.1	20:25	$7 \cdot 6$		
11	5.	7:08	3.9	14:44	11.8	20:45	8.6			11	Tu.	0:49	9 · 1	7:12	5.1	14:20	12.1	21:04	6.9
12	м.	1:06	9.9	8:05	4.0	15:28	11.9	21:32	8.0	12	w.	2:02	9.4	8:11	$5 \cdot 4$	14:53	12.0	21:35	6.1
13	Tu.	2:08	9.9	8:55	4.0	16:01	12.0	22:05	7.3	13	Th.	3:05	9.9	9:02	5.6	15:23	11.9	22:04	5.3
14	W.	3:02	10.2	9:39	4.0	16:30	11.9	22:35	6.7	14	F.	3:58	10.5	9:46	5.9	15:52	11.8	22:32	4.6
15	Th.	3:52	10.5	10:18	4.1	16:56	11.9	23:04	6.1	15	Sa.	4:42	11.0	10:26	6.2	16:20	11.8	23:00	4.0
16	F.	4:41	10.8	10:55	4.4	17:21	11.8	23:32	5.6	16	S .	5:25	11.6	11:05	6.7	16:47	11.7	23:29	3.4
17	Sa.	5:19	11.1	11:31	4.8	17:45	11.8			17	M.	6:07	12.0	11:43	7.2	17:14	11.8		
18	\$.	0:01	5.0	6:06	11.5	12:07	5.3	18:09	11.8	18	Tu.	0:00	2.8	6:49	12.3	12:22	7.7	17:42	11.8
19	M.	0:31	$4 \cdot 5$	6:51	11.6	12:42	6.0	18:34	11.7	19	W	0:34	$2 \cdot 4$	7:33	12.6	13:03	8.2	18:12	11.8
20	Tu.	1:04	$4 \cdot 0$	7:35	11.7	13:18	6.7	19:00	11.7	20	Th.	1:12	$2 \cdot 1$	8:21	12.7	13:50	8.6	18:45	11.7
21	w.	1:40	3.5	8:21	11.7	13:56	7.3	19:27	$11 \cdot 7$	21	F.	1:55	2.0	9:14	12.7	14:43	8.9	19:22	11.4
22	Th.	2:22	3.3	9:16	11.6	14:38	8.0	19:57	11.6	22	Sa.	2:42	$2 \cdot 1$	10:10	12.7	15:44	9.0	20:08	11.0
23	F.	3:11	3 · 1	10:22	11.4	15:33	8.6	20:36	11.4	23	\$.	3:33	$2 \cdot 5$	11:07	12.7	16:56	8.8	21:21	10.4
24	Sa.	4:09	3.1	11:33	11.4	16:46	9.0	21:37	11.1	24	M.	4:32	3.2	12:03	12.7	18:18	8.2	22:59	9.9
25	5.	5:13	3.1	12:42	11.5	18:13	8.9	23:05	10.8	25	Tu.	5:38	3.9	12:55	12.7	19:26	7.1		
26	M.	6:20	3.2	13:43	11.9	19:29	8.3			26	W.	0:37	10.0	6:48	4.6	13:42	12.8	20:23	5.9
27	Tu.	0:32	10.7	7:28	3.3	14:34	12.3	20:32	7.3	27	Th.	2:02	10.5	7:56	5.2	14:25	13.0	21:12	$4 \cdot 5$
28	w.	1:49	11.0	8:31	3.4	15:16	12.6	21:25	6.1	28	F.	3:16	11.2	9:00	5.8	15:05	13.0	21:56	3.3
29	Th.	3:00	11.5	9:27	3.6	15:55	12.8	22:12	4.9	29	Sa.	4:19	12.0	9:57	6.5	15:43	13.0	22:37	2.3
30	F.	4:06	12.0	10:18	4.1	16:32	13.0	22:56	3.9	30	S.	5:13	12.7	10:50	7.2	16:20	12.8	23:17	1.6
										31	M.	6:05	13 · 2	11:42	7.7	16:56	12.6	23:56	. 1.2

The Height is measured from the average level of the lowest Low Water in each month of the year.

TIDAL DIFFERENCES for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of Slack Water in the navigable passes and narrows, follow the Tide Tables.

				NO	OVE	мвен	₹.							DI	ECEN	MBER			
Date.	Day.	Time	H'ti	Time	H'tl	Time	H't	Time	H't	Date.	Day.	Time	H'tl	Time	H'tı	Time.	H'tı'l	Fime	H't
						н. м.										н. м.			
1	Tu.					17:32				1	Th.	0:10	0.9					7:33	
2	w.	0:35	1.2	7:46	13.7	13:27	8.7	18:09	11.8	2	F.	0:47	1.3	8:16	14.0	14:12	9.3	18:16	11.0
3	Th.	1:15	1.4	8:35	13.7	14:22	8.9	18:48	11.2	3	Sa.	1:25	1.9	8:54	13.9	15:07	9.0	19:05	10.3
4	F.	1:56	1.9	9:23	13.5	15:20	9.0	19:30	10.6	4	\$.	2:03	2.6	9:32	13.8	16:01	8.5	20:02	9.7
5	Sa.	2:38	2.6	10:10	13 · 4	16:24	8.8	20:23	9.8	5	M.	2:42	3.6	10:11	13.6	16:56	7.9	21:09	9 · 1
6	\$.	3:21	3.4	10:58	13 · 1	17:35	8.4	21:34	9.1	6	Tu.	3:22	4.6	10:51	13.3	17:52	7.3	22:27	8.7
7	M.	4:07	4 · 4	11:45	12.9	18:45	7.7	22:58	8.7	7	w.	4:04	5.6	11:31	13.0	18:46	6.6	23:58	8.6
8	Tu.	4:58	5.3	12:30	12.6	19:42	6.9			8	Th.	4:55	6.7	12:10	12.8	19:33	5.7		
9	w.	0:30	8.7	6:03	6 · 1	13:12	12.4	20:24	6.1	9	F.	1:36	9 · 1	5:58	$7 \cdot 6$	12:48	12.6	20:13	4.8
10	Th.	1:55	9 · 1	7:13	$6 \cdot 7$	13:50	12.3	20:57	$5 \cdot 2$	10	Sa.	2:53	9.9	7:06	8.4	13:25	12.5	20:49	3.8
11	F.	3:03	9.8	8:14	$7 \cdot 2$	14:23	12.2	21:28	4.3	11	\$.	3:54	10.7	8:16	8.9	14:01	12.5	21:24	$2 \cdot 9$
12	Sa.	3:57	10.6	9:05	$7 \cdot 6$	14:54	12 · 1	21:58	3.5	12	M.	4:36	11.6	9:18	9.3	14:36	12.4	21:58	$2 \cdot 0$
13	S.	4:41	11.3	9:51	8.0	15:24	12 · 1	22:28	$2 \cdot 7$	13	Tu.	5:16	12.3	10:11	9.6	15:12	12.6	22:33	1.2
14	M.	5:23	12.0	10:36	8.4	15:53	12 · 1	22:59	2 · 1	14	w.	5:55	13.0	11:03	9.8	15:50	12.6	23:11	0.7
15	Tu.	6:04	12.6	11:20	8.8	16:23	12.2	23:33	1.5	15	Th.	6:33	13 · 5	11:54	9.8	16:31	12.6	23:51	0.4
16	W.	6:44	13 · 1	12:05	9 · 1	16:55	12.2			16	F.	7:12	14.0	12:46	9.6	17:17	12.3		
17	Th.	0:10	1 · 1	7:26	13.4	12:53	9.2	17:32	12.1	17	Sa.	0:34	0.5	7:52	14.2	13:41	9.2	18:11	11.9
18	F.	0:50	1.0	8:10	13.6	13:45	9.3	18:15	11.8	18	\$.	1:19	1.0	8:34	14.3	14:38	8.6	19:11	11.4
19	Sa.	1:34	1 · 1	8:57	13.7	14:43	9.2	19:06	11.3	19	M.	2:06	1.8	9:18	14.3	15:37	7.8	20:20	10.7
. 20	\$.	2:21	1.7	9:46	13.7	15:47	8.8	20:08	10.7	20	Tu.	2:54	3.0	10:03	14.2	16:37	7.0	21:38	10.1
21	M.	3:10	$2 \cdot 5$	10:36	13.6	16:57	8.2	21:26	10.0	21	W.	3:43	4.5	10:47	13.9	17:38	6.1	23:07	9.7
22	Tu.	4:03		11:26		1		23:05		22	Th.	4:36		11:30					
23	W.	5:05		12:15						23	F.	0:49		5:40		12:14			
24	Th.	0:42		6:16		13:02				21	Sa.	2:34				12:57			
25	F.			7:29		13:44				25	\$.			8:21		13:39			
26	Sa.			8:39		14:23				26	M.					14:22			
27	\$.	1		9:40		15:01				27	Tu.					15:05			1.1
28	M.			10:36		15:38				28	W.			1		15:49			1.1
29	Tu.			11:31		16:15					Th.			12:13		16:34			
30	W.	0:57	13.8	12:25	9.6	16:53	12.0			30	F.			13:00		17:20			
										31	Sa.	0:24	1.1	1.48	19.9	13:46	0.9	10.07	10.9

The Height is measured from the average level of the lowest Low Water in each month of the year.

TIDAL DIFFERENCES for New Westminster and other ports on the lower Fraser, and for the Strait of Georgia, are given on pages 5, 6 and 8. Tables and other data for the time of SLACK WATER in the navigable passes and narrows, follow the Tide Tables.

-				J	ANU	ARY.								FI	EBRI	UARY	-		
· 0		Higl	h 1	Water				Vater.		e.		E	ligh '	Water				ater.	_
Date.	Day	Time. H	't	Time.	H't	Time.	H't	Time	H't	Date.	Day	Time	. H't	Time	. H't	Time.	H't	Time.	H't
		н. м. г	т.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Sa.	6:01 11	.9	18:45	9.8			12:37	4.8	1	Tu.	7:20	11.3	20:48	9.5	0:48	6.5	14:18	4.5
2	5.	7:02 11	-8	20:06	9.7	0:31	5.4	13:46	4.6	2	w.	8:24	11.3	21:55	9.8	1:56	6.9	15:18	4.2
3	M.	8:04 11	.9	21:18	9.9	1:30	6.1	14:53	4.2	3	Th.	9:21	11.4	22:47	10.2	3:02	6.9	16:10	3.9
4	Tu.	8:59 12	0	22:18	10.2	2:30	6.5	15:50	3.9	4	F.	10:08	11.5	23:24	10.5	3:57	6.8	16:53	3.5
5	w.	9:48 12	.1	23:06	10.5	3:26	6.7	16:37	3.6	5	Sa.	10:48	11.7	23:58	10.7	4:43	6.5	17:30	3.2
6	Th.	10:29 12	.2	23:45	10.7	4:16	6.8	17:16	3.3	6	5.	11:26	11.7			5:24	6.1	18:05	3.0
7	F.	11:08 12	.3			5:00	6.7	17:53	3.0	7	M.	0:31	10.9	12:03	11.7	6:03	5.6	18:38	2.8
8	Sa.	0:22 10	.9	11:46	12.3	5:41	6.6	18:29	2.8	8	Tu.	1:03	11.1	12:41	11.7	6:40	5.2	19:09	2.8
9	5.	0:58 11	•1	12:24	12.2	6:21	6.3	19:04	2.7	9	w.	1:34	11.2	13:20	11.6	7:16	4.9	19:39	3.0
10	M.	1:33 11	.2	13:01	12.0	7:00	6.0	19:38	2.7	10	Th.	2:04	11.3	14:00	11.3	7:53	4.6	20:08	3.2
11	Tu.	2:07 11	•2	13:38	11.8	7:39	5 ·8	20:11	2.8	11	F.	2:35	11.4	14:41	11.0	8:31	4.3	20:38	3.6
12	w.	2:40 11	•2	14:16	11.5	8:19	5.6	20:43	3.1	12	Sa.	3:07	11.4	15:24	10.6	9:12	4.2	21:11	4.1
13	Th.	3:13 11	.3	14:55	11.1	9:00	$5 \cdot 4$	21:16	3.5	13	5.	3:41	11.5	16:10	10.0	9:59	4.2	21:50	4.8
14	F.	3:48 11	•2	15:38	10.6	9:44	5.4	21:51	4.1	14	M.	4:20	11.5	17:07	9.4	10:56	4.3	22:38	5.4
15	Sa.	4:26 11						22:31	4.7	15	Tu.			18:21		12:04		23:39	6.0
16	\$.	5:08 11				11:36		23:20	5.3	16	w.			19:47				13:20	4.0
17	M.	5:55 11							4.9	17	Th.			21:05	9.7	0:52		14:31	3.4
18	Tu.	6:52 11			9.3			13:55	4.3	18	F.			22:09				15:33	2.8
19	w.	7:57 12			9.8			14:58	3.7	19	Sa.			23:00				16:26	2.3
20	Th.	9:00 12						15:57	2.9	20	\$.			23:43				17:15	1.9
21	F.	9:58 13						16:51	2.2	21	M.					5:23		18:02	1.7
22	Sa.	10:52 13						17:40	1.7	22	Tu.			12:25				18:48	1.8
23	S.	0:05 11						18:27	1.4	23	W. Th.			13:12		7:10 8:00		19:33	2.1
24	Tu.	0:49 12						19:13	1.6	25	F.			14:00				20:16	3.4
25	W.	1:32 12 2:15 12						19:58	2.1	26	Sa.			14:50 15:43				20:57 21:37	4.3
26 27	Th.	2:15 12						21:26	2.1	27	5a. S.			16:40				22:19	5.2
28	F.	3:44 12						22:11	3.9	28	M.					11:24		23:08	6.0
29	Sa.	4:32 12						22:58	4.9	No	A7.E.o	1.10	11.0	21.12	0.0	AL-AL	1.0	20.00	0.0
30	s.	5:23 11				12:04		23:49	5.8										
31	M.	6:19 11				12.01			4.6										
91	17.1.0	3.10		10.00	UI	1		10.11	1 0										

The Height is in feet and tenths of a foot, measured from the level of extreme Low Water.

TIDAL DIFFERENCES for the West coast of Vancouver island, are given on page 5.

		1						-										=
		Trinh			RCH.		Water					ra-la 1	W-4	API		17	17 - 4	
Date.	Day.	High Time, H't					Water		Date.	Day.			Water		Time.		Vater.	TI'4
I		H. M. FT.					H. M.						H. M.				H. M.	
1	Tu.	5:31 10·9		9.1	F1. 1V1.			4.3	1	F.	6:56		20:40	9.3	1:01		13:48	4.2
2	w.	6:32 10.5		9.2			13:36	4.4	2	Sa.	8:16		21:31	9.7	2:12	- 1	14:46	4.1
3	Th.	7:42 10.3		9.5			14:41	4.3	3	\$.	9:22		22:11				15:35	3.9
4	F.	8:54 10.4		9.9			15:35	4.0	4	M.			22:44				16:16	3.7
5	Sa.	9:53 10.6					16:19	3.7	5	Tu.			23:16				16:53	3.6
6	5.	10:38 10.9					16:57	3.4	6	w.	11:31	10.6	23:47	11.1	5:22		17:28	3.6
7	M.	11:15 11.1	23:58	10.8	5:06	5.2	17:33	3.2	7	Th.			12:09	10.8	5:59	3.1	18:02	3.6
8	Tu.	11:51 11.2			5:44	4.7	18:07	3.1	8	F.	0:17	11.4	12:48	10.8	6:35	2.6	18:35	3.8
9	w.	0:27 11.0	12:27	11.2	6:21	4.2	18:39	3.2	9	Sa.	0:48	11.6	13:28	10.7	7:11	2.2	19:08	4.0
10	Th.	0:55 11.2	13:04	11.3	6:57	3.8	19:09	3.3	10	\$.	1:20	11.7	14:10	10.5	7:48	1.9	19:43	4.2
11	F.	1:24 11.3	13:42	11.1	7:32	3.3	19:38	3.5	11	M.	1:54	11.8	14:55	10.3	8:28	1.9	20:22	4.6
12	Sa.	1:54 11.5	14:21	10.8	8:08	3.1	20:08	3.9	12	Tu.	2:33	11.7	15:44	9.9	9:16	2.0	21:09	5.0
13	5.	2:26 11.6	15: 03	10.4	8:47	3.0	20:42	4.3	13	w.	3:19	11.4	16:40	9.6	10:12	2.3	22:08	5.5
14	M.	3:02 11.7	15:52	9.9	9:33	3.1	21:23	4.9	14	Th.	4:17	10.9	17:48	9.4	11:15	2.7	23:21	5.7
15	Tu.	3:45 11.5	16:52	9.4	10:28	3.3	22:16	5.5	15	F.	5:26	10.4	19:05	9.5			12:22	3.1
16	w.	4:36 11.2	18:04	9.1	11:36	3.4	23:22	5.9	16	Sa.	6:48	10.1	20:15	10.0	0:44	5.6	13:30	3.2
17	Th.	5:42 10.9	19:24	9.2		• • • •	12:52	3.5	17	\$.	8:15	10.2	21:14	10.7	2:06	5.0	14:37	3.2
18	F.	7:02 10.8	20:43	9.8	0:41	6.1	14:04	3.2	18	M.	9:26	10.6	22:03	11.3	3:16	4.2	15:36	3.2
19	Sa.	8:26 11.0	21:44	10.5	2:11	5.7	15:07	2.9	19	Tu.	10:26	11.0	22:45	11.9	4:12	3.3	16:27	3.3
20	\$.	9:37 11.5	22:33	11.2	3:21	4.9	16:02	2.6	20	W.			23:25		5:01	2.5	17:13	3.4
21	M.	10:36 11.9	23:16	11.7	4:18	4.1	16:51	2.4	21	Th.			12:06		5:47	-	17:55	3.6
22	Tu.	11:26 12.2					17:38	2.4	22	F.			12:52				18:36	3.9
23	W.						18:23	2.6	23	Sa.			13:37				19:16	4.3
24	Th.	0:37 12.5					19:05	2.9	24	S .			14:21			i	19:55	4.6
25	F.	1:16 12.6					19:45	3.4	25	M.			15:04				20:35	5.0
26	Sa.	1:54 12.4					20:24	4.0	26	Tu.			15:49				21:20	5·5 5·8
27	5.	2:32 12.1					21:04	4.7	27	W.			16:40 17:39		10:04 10:54		22:13 23:17	6.2
28	M.	3:12 11.6					21:47	5.4	28	F.	4:00		18:44		11:50		20:11	
29	Tu.	3:55 11.0			10:40		22:39 23:46	6.0	30	Sa.	6:04		19:46		0:28			4.1
30	W.	4:43 10.4			11:37			6.5	30	54.	0.04	0.9	10.40	9.4	0.40	0.2	12.00	1 1
31	Th.	5:42 9.8	19:35	9.1			12:41	4.2										

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot, measured from the level of extreme Low Water.

Tidal Differences for the West coast of Vancouver island, are given on page 5.

					MA	Y.								,	JUI	VE.			
e.		н	igh V	Water.		L	ow I	Vater.		re.		H	igh '	Water.		L	ow	Water.	
Date.	Day.	Time.	H't	Time	H't	Time.	H't	Time.	H't	Dat	Day.	Time.	H't	Time.	H't	Time.	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	S.	7:31	8.8	20:38	9.7	1:38	5 ·8	13:55	4.2	1	w.	9:02	8.8	21:13	10.7	2:51	4.2	14:38	4.6
2	M.	8:44	8.9	21:21	10.2	2:39	5.1	14:48	4.1	2	Th.	10:00	9.2	21:53	11.2	3:42	3.4	15:24	4.7
3	Tu.	9:40	9.3	21:58	10.6	3:30	4.4	15:34	4.1	3	F.	10:48	9.6	22:32	11.7	4:26	2.6	16:08	4.8
4	w.	10:26	9.7	22:34	11.0	4:13	3.7	16:12	4.1	4	Sa.	11:34	10.0	23:10	12.0	5:09	1.9	16:51	4.8
5	Th.	11:09	10 · 1	23:09	11.4	4:53	3.0	16:48	4.2	5	\$.	12:19	10.3	23:49	12.3	5:51	1.3	17:35	4.7
6	F.	11:51	10.3	23:43	11.7	5:32	2.3	17:23	4.2	6	M.			13:03	10.5	6:34	0.8	18:21	4.6
7	Sa.			12:33	10.5	6:11	1.8	18:00	4.3	7	Tu.	0:31	12.4	13:47	10.7	7:19	0.6	19:10	4.6
8	S .	0:18	12.0	13:16	10.5	6:50	1.4	18:39	4.4	8	w.	1:16	12.3	14:32	10.7	8:06	0.6	20:02	4.5
9	M.	0:55	12.1	14:01	10.5	7:31	1.1	19:23	4.6	9	Th.	2:06	12.0	15:20	10.8	8:54	0.8	20:59	4.6
10	Tu.	1:35	12.1	14:48	10.4	8:15	1.0	20:12	$4 \cdot 7$	10	F.	3:01	11.4	16:12	10.8	9:44	1.4	22:04	4.6
11	W.	2:19	11.8	15:38	10.2	9:03	1.2	21:06	4.9	11	Sa.	4:00	10.7	17:07	10.7	10:36	2.2	23:15	4.6
12	Th.	3:09	11.4	16:34	10.0	9:55	1.7	22:07	$5 \cdot 2$	12	5 .	5:05	10.0	18:06	10.7	11:31	3.0		
13	F.	4:06	10.7	17:35	9.9	10:53	2.3	23:18	5.3	13	M.	6:21	9.3	19:08	10.8	0:27	4.4	12:30	3.8
14	Sa.	5:13	10.1	18:40	10.1	11:57	2.9			14	Tu.	7:45	9.2	20:10	11.1	1:38	4.0	13:32	$4 \cdot 5$
15	S .	6:35	9.6	19:43	10.5	0:38	5.1	13:03	3.4	15	w.	9:00	9.4	21:04	11.4	2:45	3.4	14:35	4.9
16	M.	8:01	9.6	20:42	11.0	1:56	4.4	14:08	3.8	16	Th.	10:03	9.7	21:49	11.7	3:44	2.8	15:32	5.1
17	Tu.	9:15	9.9	21:32	11.5	3:04	3.7	15:06	4.0	17	F.	10:56	10.0	22:31	11.8	4:34	2.3	16:21	5.3
18	W.			22:15				15:58	4.2	18	Sa.			23:11				17:06	5.4
19	Th.			22:56				16:45	4.4	19	\$.			23:50				17:47	5.5
20	F.			23:36				17:28	4.7	20	M.			13:01				18:27	5.4
21	Sa.			12:36				18:10	4.9	21	Tu.			13:39				19:06	5.3
22	S.			13:19				18:51	5.0	22	W.			14:16				19:46	5.2
23	M.			14:01				19:31	5.2	23	Th.			14:52				20:28	5.1
24	Tu. W.			14:42				20:12	5.3	24	F.			15:29				21:13	5.0
25 26	Th.			15:24				20:55	5.4	25	Sa.			16:07				22:02	5.1
27	F.			16:09		9:30		21:43	5.6	26 27	≫. M.	3:48		16:48					5.1
28	Sa.	4:17		16:56 17:46		10:11		22:38	5.7	28	Tu.	4:42 5:47		17:34 18:26				11:45	4.4
29	Sa.	5:21		18:38		11:47				29	w.	7:02		19:22				12:44	4.9
30	M.	6:29		19:34		0:48		12:44	4.3	30	Th.	8:23		20:19				13:45	5.2
31	Tu.	7:52		20:28				13:44	4.5	30	111.	0.20	0.4	20.19	10.7	2.10	7-0	10.20	0.7
31	III.	1.02	9.9	20.28	10.2	1.33	4.9	13.44	4.0					1					

The HEIGHT is in feet and tenths of a foot, measured from the level of extreme Low Water.

TIDAL DIFFERENCES for the West coast of Vancouver island, are given on page 5.

										1							-		=
					JUI											UST.			
Date.	Day.			Water				Water.		Date.	Day.			Water				Vater.	
0		Time	. H't	Time	. H't	Time.	H't	Time.	H't	0	<u> </u>	Time	. H't	Time	. H't	Time.	H't	Time.	H't
				н. м.				н. м.						н. м.				н. м.	
1	F.	9:35		21:12				14:43	5.3	1	M.	10:48		22:21				16:08	5.0
2	Sa.	10:34		22:02				15:39	5.2	2	Tu.			23:12		5:04		17:03	4.4
3	5.	11:24		22:51				16:34	5.1	3	W.			12:18		5:50		17:57	3.8
4	M.			23:39				17:27	4.8	4	Th.			13:01				18:50	3.3
5	Tu.			12:53				18:19	4.5	5	F.			13:43				19:42	2.9
6	W.			13:34				19:12	4.1	6	Sa.			14:25				20:33	2.7
7	Th.			14:14				20:06	3.9	7	\$.			15:08				21:26	2.7
8	F. Sa.			14:56				21:01	3.8	8	M. Tu.			15:53 16:44				22:22	3·0 3·3
9	Sa.			15:41 16:32				22:53	3.7	10	W.	5:36		17:42				20.20	
11	M.			17:27				23:54	3.8	11	Th.	6:59		18:46				12:22	5.7
12	Tu.	6:04		18:25						12	F.	8:19		19:55				13:30	6.1
13	W.	7:22		19:27				12:51	5.1	13	Sa.	9:28		20:56				14:37	6.2
14	Th.	8:42		20:27				13:57	5.7	14	Sa.	10:22		21:47				15:35	6.0
15	F.	9:49		21:20				15:01	5.9	15	M.	11:02		22:29				16:24	5.7
16	Sa.	10:41		22:06				15:57	5.9	16	Tu.			23:09				17:07	5.2
17	\$.	11:23		22:47				16:44	5.8	17	w.			23:48				17:46	4.8
18	M.			23:27				17:27	5.6	18	Th.			12:37			2.4	18:23	4.3
19	Tu.	1		12:36				18:07	5.3	19	F.	0:26	10.9	13:07	10.6	6:44	2.4	18:59	3.9
20	w.			13:10			2.0	18:46	5.0	20	Sa.	1:03	10.9	13:36	10.8	7:15	2.5	19:34	3.6
21	Th.	0:44	11.2	13:43	10.5	7:15	1.9	19:24	4.7	21	\$.	1:40	10.7	14:06	10.8	7:45	2.7	20:10	3.4
22	F.	1:21	11.0	14:17	10.6	7:47	2.0	20:01	4.4	22	M.	2:18	10.4	14:37	10.8	8:16	3.1	20:49	3.3
23	Sa.	1:58	10.7	14:49	10.6	8:19	2.3	20:39	4.3	23	Tu.*	2:57	10.0	15:09	10.9	8:48	3.6	21:32	3.4
24	5.	2:36	10.3	15:22	10.5	8:52	2.7	21:19	4.2	24	w.	3:39	9.5	15:43	10.8	9:24	4.2	22:21	3.5
25	M.	3:17	9.8	15:57	10 · 5	9:26	3.2	22:05	4.3	25	Th.	4:33	9.0	16:25	10.7	10:07	4.9	23:24	3.7
26	Tu.	4:04	9.3	16:36	10 - 4	10:04	3.9	23:00	4.3	26	F.	5:45	8.5	17:23	10.5	11:03	5.4		
27	w.	5:00	8.7	17:22	10 - 4	10:49	4.6	3		27	Sa.	7:11	8.4	18:39	10.5	0:39	3.6	12:15	5.8
28	Th.	6:12	8.3	18:19	10 - 5	0:07	4.2	11:44	5.2	28	5.	8:26	8.8	19:58	10.8	1:49	3.2	13:36	5.7
29	F.	7:41	8.3	19:24	10.7	1:21	3.8	12:49	5.6	29	M.	9:31	9.5	21:11	11.3	2:52	2.7	14:52	5.3
30	Sa.	8:59	8.7	20:28	11.2	2:26	3.2	2 14:01	5.6	30	Tu.	10:26	10.3	22:16	11.7	3:48	2.1	15:58	4.8
31	\$.	9:58	9.3	21:27	11.6	3:24	2.8	15:08	5.4	31	w.	11:12	11.0	23:13	12.2	4:38	1.7	16:55	3.8
		1		1		1		1		1	1	1		1					

The Height is in feet and tenths of a foot, measured from the level of extreme Low Water.

TIDAL DIFFERENCES for the West coast of Vancouver island, are given on page 5.

			QT.	DTT	MBEF		***************************************							CTO	BER.			_
		High	Water				Water.				F	Tigh	Water				Water.	
Date.	Day	Time. H'							Date.	Day							Time.	
-		H. M. FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Th.	11:54 11.6	23:58	12.3	5:26	1.5	17:47	3.0	1	Sa.	11:59	12.6			5:46	2.6	18:15	1.7
2	F.		12:33	12.2	6:12	1.4	18:36	2.4	2	∌.	0:33	12.1	12:39	12.7	6:31	2.9	19:02	1.5
3	Sa.	0:42 12-3	13:11	12.4	6:57	1.7	19:24	2.0	3	M.	1:21	11.9	13:19	12.7	7:15	3.4	19:48	1.4
4	5.	1:28 12.1	13:50	12.4	7:41	2.2	20:12	1.9	4	Tu.	2:09	11.5	14:00	12.4	7:58	3.9	20:35	1.7
5	M.	2:17 11.6	14:31	12.3	8:24	2.8	21:01	$2 \cdot 0$	5	w.	2:58	11.1	14:42	12.0	8:41	4.6	21:23	2.2
6	Tu.	3:12 11.0	15:14	11.8	9:08	3.7	21:52	2.4	6	Th.	3:48	10.5	15:26	11.3	9:25	5.2	22:13	2.8
7	W.	4:12 10.2	16:00	11.3	9:53	4.5	22:47	3.0	7	F.	4:41	9.9	16:15	10.6	10:13	5.9	23:07	3.4
8	Th.	5:15 9.5	16:51	10.7	10:41	5.4	23:48	3.5	8	Sa.	5:42	9.5	17:14	9.9	11:18	6.4		
9	F.	6:23 9.0	17:54	10.1	11:43	6.1		• • • •	9	\$.	6:57	9.4	18:25	9.4	0:08	4.0	12:40	6.6
10	Sa.	7:44 8.9	19:10	9.8	0:55	3.9	13:01	6.5	10	M.	8:07	9.6	19:45	9.3	1:16	4.3	13:53	6.3
11	5 .	8:57 9.2	20:25	9.8	2:07	3.9	14:21	6.3	11	Tu.	9:03	9.9	20:56	9.5	2:16	4.3	14:53	5.7
12	M.	9:48 9.6	21:23	10.0	3:07	3.8	15:23	5.9	12	w.	9:45	10.3	21:49	9.9	3:07	4.2	15:40	5.1
13	Tu.	10:26 10.0	22:10	10.3	3:54	3.5	16:08	5.3	13	Th.	10:19	10.7	22:31	10.2	3:49	4.1	16:21	4.4
14	W.	10:59 10-4	22:52	10.5	4:32	3.4	16:46	4.8	14	F.	10:51	11.0	23:10	10.4	4:26	4.1	17:00	3.8
15	Th.	11:31 10.6	23:31	10.7	5:07	3.2	17:23	4.2	15	Sa.	11:22	11.3	23:48	10.6	5:01	4.1	17:37	3.2
16	F.		12:02	10.8	5:40	3.1	17:59	3.7	16	\$.	11:52	11.5		• • • • • •	5:35	4.1	18:13	2.8
17	Sa.	0:09 10.7	12:32	11.0	6:12	3.2	18:34	3.2	17	M.	0:26	10.7	12:22	11.7	6:08	4.3	18:48	2.4
18	\$.	0:46 10.7	13:01	11.2	6:43	3.3	19:09	2.9	18	Tu.	1:05	10.7	12:53	11.9	6:42	4.5	19:24	2.1
19	M.	1:23 10.6	13:29	11.3	7:13	3.5	19:45	2.7	19	W.	1:46	10.6	13:25	12.0	7:17	4.7	20:02	2.0
20	Tu.	2:01 10.4	13:58	11.3	7:44	3.9	20:23	2.6	20	Th.	2:29	10.5	14:00	11.9	7:55	5.0	20:44	2.1
21	W.	2:41 10.2	14:29	11.4	8:16	4.2	21:05	2.6	21	F.	3:16	10.2	14:40	11.7	8:38	5.3	21:33	2.4
22	Th.	3:25 9.8	15:06	11.2	8:52	4.8	21:53	2.9	22	Sa.	4:08	9.9	15:29	11.3	9:29	5.7	22:28	2.8
23	F.	4:17 9.3	15:51	10.9	9:39	5.3	22:49	3.1	23	\$.	5:06	9.8	16:30	10.7	10:32	6.0	23:31	3.2
24	Sa.	5:21 9.0	16:50	10.6	10:40	5.8			24	M.	6:12	9.8	17:48	10.3	11:50	6.0		
25	5.	6:36 8.9	18:09	10.3	0:01	3.3	11:57	6.0	25	Tu.	7:22	10.2	19:21	10.2	0:40	3.5	13:16	5.5
26	M.	7:54 9.4	19:37	10.4	1:16	3.3	13:27	5.7	26	W.	8:24	10.9	20:39	10.5	1:48	3.7	14:29	4.7
27	Tu.	8:59 10.1				3.1	14:41	5.0	27	Th.	9:19	11.5	21:46	11.0	2:47	3.7	15:32	3.7
28	w.	9:51 10.9	21:58	11.3	3:21	2.8	15:43	4.1	28	F.	10:08	12.2	22:43	11.4	3:39	3.7	16:27	2.8
29	Th.	10:36 11.6	22:53	11.8	4:12	2.5	16:37	3.1	29	Sa.	10:52	12.7	23:34	11.7	4:28	3.9	17:16	2.1
30	F.	11:18 12-2	23:44	12.0	5:00	2.5	17:27	2.3	30	\$.	11:33	13.0			5:14	4.1	18:04	1.7
									31	· М.	0:22	11.7	12:13	13 · 1	5:59	4.4	18:49	1.5

The HEIGHT is in feet and tenths of a foot, measured from the level of extreme Low Water.

TIDAL DIFFERENCES for the West coast of Vancouver island, are given on page 5.

=									11	-									_
				N(OVE	MBER								DI	ECEI	MBER			
Date.	ky.	H	IGH '	WATER		Lo	w V	VATER.		Date.	ty.	Н	IGH \	VATER		Lo	w V	VATER.	
ñ	Day.	Time.	H't	Time	. H't	Time.	H't	Time.	H't	Di	Day.	Time	. H't	Time	. H't	Time.	H't	Time.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Tu.	1:10	11.7	12:52	12.9	6:43	4.7	19:32	1.5	1	Th.	1:42	11.5	13:05	12.7	7:13	5.9	19:52	$2 \cdot 1$
2	W.			13:31				20:14	1.8	2	F.	2:24	11.4	13:45	12.2	7:57	6.0	20:31	2.4
3	Th.	2:42	11.2	14:11	12.1	8:12	5.5	20:56	2.2	3	Sa.	3:05	11.2	14:26	11.6	8:42	6.1	21:09	2.8
4	F.	3:28	10.9	14:52	11.5	9:00	5 ·8	21:39	$2 \cdot 7$	4	\$.	3:46	11.0	15:08	11.0	9:29	6.2	21:48	3.4
5	Sa.			15:36				22:24	3.4	5	M.			15:53				22:30	4.0
6	S.			16:28				23:15	4.0	6	Tu.			16:48			6.3	23:18	4.6
7	M.			17:34		11:59				3.	W.			18:00	9.3			12:23	6.1
8	Tu.			18:55	9.1			13:12	6.2	8	Th.			19:24	9.1			13:29	5.7
9	W.			20:12	9.2	- ,		14:16	5.7	9	F.			20:38	9.3			14:28	5.1
10	Th.			21:16	9.5			15:09	5.0	10	Sa.			21:39	9.7			15:18	4.4
11	F.			22:08	9.9			15:54	4.3	11	5.			22:29		2:54		16:03	3.8
12	Sa.			22:50				16:34	3.7	12	M.			23:13				16:45	3.1
13	\$.	10:45						17:12	3.1	13	Tu.			23:56				17:26	2.5
14	M.					4:57		17:49	2.5	14	W.			11:20				18:07	2.0
15	Tu.			11:52				18:25	2.1	15	Th.			12:01				18:49	1.7
16	W.			12:26				19:02	1.8	16	F.			12:45				19:32	1·6 1·7
17	Th.			13:02				19:41	1.7	17	Sa.			13:33				20:16	
18	F. Sa.			13:43				20:24	1.8	18	5.			14:25 15:20				21:02	$2 \cdot 1$ $2 \cdot 7$
19	Sa.			14:30				22:06	$2 \cdot 1$ $2 \cdot 6$	20	Tu.			16:21				22:41	3.6
20	M.			15:24 16:26				23:06	3.3	21	W.			17:31				23:36	4.4
21	Tu.			17:41				20.00		22	Th.								4.9
23	W.			19:06				13:06	5.2	23	F.			20:17				14:00	4.4
24	Th.			20:28				14:18	4.5	24	Sa.			21:28				15:01	3.8
25	F.			21:36				15:20	3.7	25	\$.			22:26				15:57	3.2
26	Sa.			22:35				16:14	2.9	26	M.			23:16				16:47	2.8
27	5.			23:26				17:03	2.4	27	Tu.					4:36		17:32	2.6
28	M.	1				4:55		17:48	2.1	28	w.			11:23				18:13	2.4
29	Tu.			11:47				18:31	1.9	29	Th.			12:02				18:52	2.4
30	w.			12:26			5.8	19:12	1.9	30	F.	1:21	11.4	12:41	12.4	6:51	6.1	19:29	2.5
										31	Sa.	1:59	11.5	13:20	12.1	7:33	6.0	20:05	2.7
		1						1				1							

The Height is in feet and tenths of a foot, measured from the level of extreme Low Water.

Tidal Differences for the West coast of Vancouver island, are given on page 5.

-				JA	ANU	ARY.								FE	BRI	UARY	7.		<u> </u>
9		H	igh '	WATER		Lo	ow V	VATER.		ė.		H	IGH	VATER.		L	ow V	VATER.	
Date.	Day.	Time	. H't	Time	. H't	Time.	H't	Time.	H't	Date.	Day	Time	H't.	Time	H't.	Time	H't.	Time	H't.
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Sa.	7:02	19.8	19:39	16.8	0:26	6.6	13:30	7.3	1	Tu.	8:21	18.5	21:39	15.8	1:49	9.8	15:23	7.4
2	S.	7:59	19.5	20:54	16.5	1:25	8.0	14:46	7.2	2	W.	9:24	18.4	22:46	16.3	3:04	10.4	16:33	6.8
3	M.	8:58	19.4	22:07	16.6	2:32	9.2	15:58	6.8	3	Th.	10:23	18.7	23:37	17.0	4:21	10.3	17:29	6.1
4	Tu.	9:55	19.6	23:08	16.9	3:48	9.7	16:59	6.2	4	F.	11:16	19.1			5:25	9.8	18:13	5.3
5	W.			23:58		4:53	9.8	17:51	$5 \cdot 5$	5	Sa.	0:18	17.8	12:01	19.5	6:14	9.1	18:48	4.6
6	Th.	11:36	20.3			5:45	9.6	18:34	4.8	6	\$.	0:54	18.5	12:40	20.0	6:52	8.3	19:19	4.2
7	F.	0:39	18.3	12:17	20.6	6:26	9.3	19:09	4.3	7	M.	1:27	19.1	13:16	20 · 4	7:23	$7 \cdot 7$	19:48	3.9
8	Sa.	1:16	18.9	12:54	21.0	7:02	8.9	19:40	4.0	8	Tu.	1:58	19.6	13:50	20.6	7:53	7.1	20:16	4.0
9	\$.	1:51	19.4	13:30	21.0	7:37		20:10	3.9	9	W.	2:28	20.0	14:23	20.5	8:23	6.8	20:44	4.2
10	М.			14:05				20:39	4.1	10	Th.			14:57				21:13	4.7
- 11	Tu.			14:40				21:09	4.4	11	F.			15:33				21:44	5.4
12	W.			15:16				21:40	4.9	12	Sa.			16:13				22:18	$6 \cdot 2$
13	Th.			15:54				22:13	5.6	13	5 .			16:59				22:57	7.0
14	F.			16:36				22:49	6.4	14	M.			17:58			-	23:45	7.9
15	Sa.			17:26				23:30	7.2	15	Tu.			19:16					6.9
16	\$.								8.1	16	W.			20:37				14:06	6.7
17	М.			19:42				13:27	7.8	17	Th.			21:52				15:28	6.0
18	Tu.			21:00				14:41	7.3	18	F.			22:55		3:22		16:37	4.8
19	W.			22:15				15:54	6.2	19	Sa.			23:48				17:36	3.5
20	Th.			23:18				16:58	4.6	20	S.			10.07		5:39		18:26	2.4
21	F.			11.50		4:48		17:53	3.1	21	М.			12:37				19:08	1.7
22	Sa.			11:59				18:41 19:25	$2 \cdot 0$ $1 \cdot 1$	22 23	Tu. W.			13:25 14:12		7:24 8:09		19:49 20:29	1·6 2·0
23 24	Б .			12:48 13:36				20:08	0.9	24	Th.			14:12		8:53		20:29	3.1
25	Tu.			14:24				20:50	1.4	25	F.			15:45				21:48	4.4
26	W.			15:13				21:33	2.4	26	Sa.			16:34				22:30	6.0
27	Th.			16:03				22:17	3.8	27	Sa.			17:27				23:16	7.6
28	F.			16:56				23:03	5.4	28	M.			18:28					6.6
29	Sa.			17:53				23:52	7.1			0.01		-3.20					
30	Su.								7.1										
31	M.					0:45			7.5										
	144	1.20	10 0	20.10	20 0	0.10		1.00	. 0					•					

The HEIGHT is in feet and tenths of a foot, measured from the level of extreme Low Water.

TIDAL DIFFERENCES for the northern part of the coast of British Columbia and for the Queen Charlotte islands, are given on pages 6 and 7. Tables and other data for the time of Slack Water in the various narrows, follow the Tide Tables.

					MAF	RCH.									API	RIL.			
e e		H	IGH \	VATER			ow V	VATER.		ů		H	IGH V	WATER			ow V	VATER.	
Date.	Day.	Time	. H't	Time	. H't	Time	. H't	Time.	H't	Dat	Day	Time	. H't	Time	. H't	Time	H't	Time.	H't
		н. м	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	Tu.	6:31	18.3	19:41	15.7	0:08	9 · 1	13:19	7.4	1	F.	8:11	16.3	21:35	16.2	1:54	10.7	14:54	7.8
2	w.	7:42	17.5	21:07	15.5	1:13	10.2	14:35	7.7	2	Sa.	9:22	16.5	22:28	16.8	3:24	10.4	15:59	7.4
3	Th.	8:56	17.2	22:18	16.0	2:33	10.6	15:48	$7 \cdot 4$	3	\$.	10:20	17.0	23:10	17.7	4:38	9.4	16:54	6.8
4	F.	9:59	17.4	23:11	16.7	3:58	10.4	16:50	6.8	4	M.	11:10	17.8	23:44	18.7	5:27	8.2	17:39	6.2
5	Sa.	10:53	17.9	23:51	17.6	5:07	9.6	17:40	6.0	5	Tu.	11:53	18.6			6:04	6.9	18:15	5.7
6	S.	11:38	18-7			5:56	8.6	18:19	5.2	6	w.	0:17	19.5	12:33	19.4	6:35	5.7	18:46	5.2
7	M.	0:23	18.4	12:18	19.4	6:33	$7 \cdot 5$	18:50	4.7	7	Th.	0:49	20.3	13:11	19.9	7:05	4.6	19:16	5.1
8	Tu.	0:53	19.2	12:55	19.9	7:03	6.6	19:19	4.3	8	F.	1:20	20.9	13:47	20 - 1	7:37	3.8	19:45	5.2
9	W.	1:22	19.9	13:30	20.2	7:32	5.8	19:47	4.3	9	Sa.	1:50	21.4	14:22	20.1	8:11	3.3	20:16	5.5
10	Th.	1:51	20.3	14:04	20.4	8:01	5.1	20:14	4.4	10	\$.	2:21	21.6	14:59	19.7	8:49	3.1	20:51	6.0
11	F.	2:21	20.6	14:39	20.1	8:31	4.8	20:42	4.9	11	M.	2:54	21.4	15:42	19.0	9:30	3.3	21:31	6.7
12	Sa.			15:16				21:13	5.5	12	Tu.			16:32				22:18	7.6
13	. 5.			15:57				21:48	6.3	13	W.			17:32				23:13	8.3
14	M.			16:45				22:29	7.2	14	Th.			18:41				12:06	5.2
15	Tu.			17:44				23:19	8.1	15	F.			19:55				13:16	5.8
16	W.			18:55		0.00			6.0	16	Sa.	1		21:08				14:34	6.0
17	Th. F.			20:16				13:41	6·2 5·9	17	S. M.			22:07 22:59				15:43	5.7
19	Sa.			21:29 22:31				15:03 16:14	5.1	19	Tu.			23:45				16:43 17:36	5.0
20	Sa.			23:25				17:15	4.2	20	w.			12:13				18:23	4.8
21	M.			20,20		5:36		18:07	3.4	21	Th.			12:59				19:04	4.8
22	Tu.			12:28				18:51	3.0	22	F.			13:43				19:42	5.2
23	w.			13:14				19:29	3.0	23	Sa.			14:26				20:19	5-8
24	Th.			13:58		7:53		20:06	3.4	24	S .			15:08				20:55	6.7
25	F.	2:16	22.5	14:41	21.2	8:33	2.4	20:42	4.3	25	M.	2:57	21.2	15:50	18.8	9:32	3.5	21:32	7.7
26	Sa.	2:55	22 · 1	15:25	20.3	9:14	2.9	21:19	5.5	26	Tu.	3:35	20.2	16:34	18.0	10:12	4.5	22:13	8.6
27	\$.	3:34	21.4	16:11	19.1	9:56	3.8	21:58	6.8	27	w.	4:16	19.0	17:24	17.3	10:55	5.5	23:02	9.5
28	M.	4:14	20.3	17:01	17.9	10:41	4.9	22:41	8.2	28	Th.	5:06	17.9	18:24	16.7	11:43	6.5		
29	Tu.	4:56	19.1	17:59	16.7	11:31	6.1	23:32	9.4	29	F.	6:09	16.6	19:31	16.4	0:01	10.2	12:39	7.3
30	w.	5:46	17.9	19:08	16.0			12:32	7.0	30	Sa.	7:20	16.0	20:37	16.6	1:10	10.5	13:43	7.7
31	Th.	6:51	16.8	20:28	15.8	0:36	10.4	13:41	7.6								and the same		

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

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The HEIGHT is in feet and tenths of a foot measured from the level of extreme Low Water.

Tidal Differences for the northern part of the coast of British Columbia and for the Qieen Charlot te islands, are given on pages 6 and 7. Tables and other data for the time of Slack Water in the various narrows, follow the Tide Tables.

				MA	AY.								- in/-	'JUI	NE.			=
Ġ.		Нідн	WATER		L	ow V	VATER.		e.		H	IGH '	WATER		Lo	w V	WATER.	
Date.	Day	Time. H't	Time.	H't	Time.	H't	Time.	H't	Date.	Day	Time.	H't	Time	. H't	Time.	H't	Time.	H't
		H. M. FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.
1	\$.	8:33 15.8	21:31	17 · 1	2:27	10 · 1	14:48	7.8	1	w.	9:51	16.1	22:08	18.8	3:50	7.8	15:40	8.1
2	M.	9:37 16.2	22:16	17.9	3:41	9.2	15:46	7.7	2	Th.	10:47	16.8	22:53	19.7	4:44	6.4	16:33	7.8
3	Tu.	10:32 16.9	22:56	18.8	4:38	8.0	16:37	7.3	3	F.	11:36	17.7	23:35	20.8	5:30	5.0	17:22	7.4
4	w.	11:20 17.7	23:33	19.7	5:25	6.6	17:22	6.9	4	Sa.			12:22	18.6	6:13	3.5	18:09	6.9
5	Th.		12:03	18.7	6:05	5.2	18:02	6.5	5	S .	0:16	$21 \cdot 7$	13:07	19.3	6:55	2.3	18:54	6.4
6	F.	0:09 20.7	12:45	19.4	6:43	3.9	18:39	6.1	6	M.	0:57	22.4	13:51	19.9	7:36	1.4	19:38	$6 \cdot 2$
7	Sa.	0:44 21.5	13:26	19.8	7:20	2.9	19:15	5.9	7	Tu.	1:39	22.8	14:35	20.1	8:18	1.0	20:22	6.1
8	\$.	1:20 22.0	14:08	20.0	7:56	2.2	19:52	6.0	8	w.	2:23	22.5	15:21	20.1	9:02	1.1	21:08	6.3
9	M.	1:57 22.2	14:51	19.9	8:33	1.9	20:31	6.3	9	Th.	3:10	21.9	16:13	19.7	9:49	1.7	21:59	6.7
10	Tu.	2:38 22.0	15:36	19.5	9:12	2.1	21:15	6.9	10	F.	4:02	20.7	17:10	19.4	10:39	2.7	22:59	7.1
11	w.	3:23 21.5	16:25	18.9	9:55	$2 \cdot 7$	22:06	7.5	11	Sa.	5:04	19.4	18:10	19.0	11:33	3.9		
12	Th.	4:13 20.4	17:21	18.2	10:46	3.6	23:06	8.2	12	S.	6:15	18.0	19:11	18.9	0:07	7.4	12:30	5.2
13	F.	5:12 19.2	18:28	17.9	11:46	$4 \cdot 5$			13	M.	7:29	17.0	20:13	18.8	1:20	$7 \cdot 4$	13:31	$6 \cdot 4$
14	Sa.	6:23 18.0	19:42	17.9	0:15	8.5	12:54	5.4	14	Tu.	8:44	16.4	21:12	19.0	2:37	6.9	14:36	7.3
15	5.	7:43 17.2	20:44	18.2	1:33	8.4	14:05	6.1	15	W.	9:55	16.4	22:06	19.5	3:53	6.2	15:43	7.8
16	M.	8:59 17.1	21:38	18.9	2:57	7.6	15:13	6.6	16	Th.	10:57	16.9	22:55	20.0	4:56	5.2	16:46	8.0
17	Tu.	10:07 17.6	22:29	19.9	4:14	6.4	16:14	6.6	17	F.	11:50	17.4	23:40	20.4	5:48	4.2	17:40	8.0
18	W.	11:06 18.2	23:17	20.7	5:16	5.1	17:10	6.6	18	Sa.			12:35	18.0	6:32	3.6	18:25	7.9
19	Th.	11:58 18.8			6:06	3.9	17:59	6.6	19	\$.	0:21	20.7	13:16	18.5	7:10	3.1	19:04	7.7
20	F.	0:02 21.3	12:46	19.2	6:47	3.0	18:42	6.6	20	M.	0:59	20.9	13:55	18.8	7:45	2.8	19:40	7.7
21	Sa.	0:43 21.6	13:31	19.4	7:24	2.5	19:21	6.8	21	Tu.	1:36	20.7	14:33	19.0	8:18	2.8	20:15	7-7
22	5 .	1:22 21.7	14:13	19.4	8:00	2.4	19:58	7.1	22	W.	2:12	20.5	15:10	18.9	8:50	3.2	20:49	7.8
23	M.	1:59 21-4	14:54	19.2	8:35	2.7	20:34	7.6	23	Th.	2:48	20.0	15:46	18.7	9:21	3.7	21:25	8.0
24	Tu.	2:35 20.8	15:34	18.8	9:10	3.3	21:11	8.0	24	F.	3:25	19.2	16:23	18.3	9:53	4.3	22:04	8.3
25	W.	3:12 20.0	16:15	18.3	9:46	4.1	21:50	8.6	25	Sa.	4:04	18.3	17:03	18.0	10:28	5.1	22:49	8.5
26	Th.	3:51 19-1	16:58	17.9	10:24	4.9	22:34	9.2	26	\$.	4:50	17.3	17:47	17.8	11:07	5.9	23:42	8.6
27	F.	4:33 18.0	17:45	17.4	11:05	5.8	23:26	9.6	27	M.	5:45	16.4	18:36	17.5	11:51	6.7		• • • •
28	Sa.	5:24 16.9	18:36	17.1	11:51	6.6			28	Tu.	6:48	15.6	19:28	17.6	0:42	8.6	12:42	7.4
29	5.	6:27 16.1	19:32	17.0	0:27	9.7	12:44	7.2	29	w.	7:58	15.2	20:22	17.9	1:47	8.2	13:39	8.0
30	M.	7:39 15.6	20:27	17.4	1:36	9.5	13:42	7.8	30	Th.	9:13	15.3	21:17	18.6	2:54	7.5	14:41	8.3
31	Tu.	8:48 15.6	3 21:19	18.0	2:47	8.8	14:42	8.0										

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The Height is in feet and tenths of a foot, measured from the level of extreme Low Water.

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					JUI	37									LIIC	UST.			
		H	сн Т	WATER			w V	VATER.				— н	ICH I	WATER			w V	VATER.	
Date.	Day.					Time.				Date.	Day.					Time.			
				н. м.		н. м.								н. м.				н. м.	
1	F.	10:20				4:00		15:45	8.3	1	M.			23:34		5:27		17:2 5	7.1
2	Sa.	11:17	16.8	23:04	20.6	4:59	4.9	16:48	8.0	2	Tu.			12:31	19.1	6;18	2.1	18:24	5.9
3	5 .	12:06	18.0	23:55	21.6	5:52	3.4	17:46	7.2	3	w.	0:26	22.2	13:18	20.3	7:04	1.1	19:15	4.7
4	M.			12:52	19.1	6:40	2.0	18:39	6.4	4	Th.	1:17	22.7	14:03	21.1	7:47	0.5	20:03	3.9
5	Tu.	0:44	$22 \cdot 5$	13:37	20.0	7:24	1.0	19:28	5.7	5	F.	2:06	22.7	14:47	21.6	8:29	0.6	20:50	3.5
6	w.	1:31	22.8	14:21	20.5	8:07	0.5	20:16	5.2	6	Sa.	2:56	22 · 1	15:30	21.5	9:10	1.3	21:38	3.5
7	Th.	2:17	22.8	15:06	20.8	8:49	0.4	21:03	5.0	7	\$.	3:47	21.0	16:15	21.1	9:52	$2 \cdot 5$	22:28	4.1
8	F.	3:05	$22 \cdot 0$	15:53	20.7	9:32	1.1	21:51	5.2	8	M.	4:40	19.7	17:04	$20 \cdot 4$	10:36	4.0	23:21	4.9
9	Sa.	3:57	20.9	16:44	20.3	10:17	2.2	22:43	5.5	9	Tu.	5:36	18.1	17:57	19.5	11:24	5.8		
10	\$.	4:53	19.5	17:38	19.9	11:06	3.6	23:43	6.0	10	W.	6:37	16.6	18:53	18.6	0:22	5.8	12:18	7.4
11	M.	5:54	18 · 1	18:35	19.3			12:00	5.2	11	Th.	7:45	15.6	19:53	18.0	1:31	6.4	13:22	8.8
12	Tu.	7:02	16.7	19:35	18.9	0:54	6.4	13:00	6.7	12	F.	9:02	15.3	20:56	17.7	2:49	6.6	14:38	9.6
13	W.	8:17	15.9	20:35	18.6	2:11	6.5	14:04	8.0	13	Sa.	10:21	15.6	22:01	17.9	4:08	6.4	16:00	9.8
14	Th.	9:34	15.6	21:33	18.7	3:26	6.3	15:12	8.8	14	\$.	11:22	16.4	22:58	18.3	5:12	5.7	17:13	9.3
15	F.	10:40	16.0	22:27	19.0	4:35	5.6	16:21	9 · 1	15	М.			23:46			5.0	18:06	8.5
16	Sa.	11:35	16.5	23:16	19.3	5:33	4.8	17:24	8.9	16	Tu.			12:41				18:44	7.7
17	\$.							18:15	8.5	17	W.			13:14				19:17	6.9
18	М.			13:00		7:00		18:55	8.0	18	Th.			13:45		7:36		19:47	6.4
19	Tu.			13:37				19:31	7.5	19	F.			14:15				20:16	5.9
20	W.			14:12		8:02		20:04	7.2	20	Sa.			14:44				20:46	5.6
21	Th.			14:46				20:36	6.9	21 22	M.			15:14 15:46				21:17 21:51	5·6 5·7
22 23	F. Sa.			15:18 15:50				21:08 21:42	$6 \cdot 9$ $7 \cdot 0$	23	Tu.			16:20				22:30	5.9
24	Sa.			16:24				22:42	7.0	24	W.			16:57			-	23:18	6.2
25	M.			17:01				23:05	7.3	25	Th.			17:42					
26	Tu.			17:41				23:56	7.3	26	F.			18:41		0:18		12:15	8.3
27	W.		¥	18:29						27	Sa.			19:57		1:29		13:22	9.0
28	Th.			19:28		0:56		12:48	8.0	28	S .			21:14		2:48		14:39	9.0
29	F.			20:34				13:51	8.6	29	M.			22:22		4:00		16:04	8.2
30	Sa.			21:38		3:22		15:02	8.8	30	Tu.	11:21	18.2	23:24	20.7	5:03	4.0	17:14	6.7
31	5.	10:46						16:16	8.2	31	w.	1		12:10				18:10	5.1
		1										1							

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=				0.77					1						OFFICE	DED			
		Hic	TT V	VATER		MBER		VATER				H	TOTT \			BER.		VACCO	
Date.	Day.	Time.								Date	Day.					Time			
		н. м.												н. м.				н. м.	
1	Th.	0:18 2	- 1					18:59	3.7	1	Sa.			13:12				19:30	
2	F.	1:06 2	-					19:45	2.7	2	5.			13:52				20:13	1.9
3	Sa.	1:52 2						20:30	2.3	3	M.			14:31		8:24		20:56	2.2
4	\$.	2:37 2						21:14	2.6	4	Tu.	3:05	21.0	15:11	22.1	9:04		21:40	3.0
5	M.	3:24 2	21.1	15:39	21.7	9:23	3.7	21:59	3.3	5	w.	3:54	20.0	15:53	21.1	9:45	6.6	22:27	4.2
S	Tu.	4:14 1	9.8	16:23	20.8	10:05	5.2	22:47	4.3	6	Th.	4:46	18.8	16:39	19.8	10:29	7.9	23:17	5.4
3	w.	5:08 1	8.3	17:11	19.6	10:50	6.8	23:40	5.5	7	F.	5:41	17.6	17:31	18.5	11:19	9.3		
8	Th.	6:07 1	7.0	18:07	18.4	11:43	8.3			8	Sa.	6:45	16.7	18:34	17.2	0:11		12:24	
9	F.	7:15 1	6.0	19:13	17.5	0:45		12:47	9.6	9	5.	7:58	16.4	19:47	16.5	1:14	7.5	13:42	10.6
10	Sa.	8:32 1	5.6	20:28	16.9	2:01	7.1	14:12	10.3	10	M.	9:08	16.6	20:58	16.5	2:26	7.9	15:03	10.3
11	5.	9:52 1	5.9	21:41	17.0	3:19	7.2	15:36	10.1	11	Tu.	10:05	17.3	22:02	16.9	3:35	7.8	16:13	9.5
12	M.	10:49 1	6.6	22:39	17.5	4:28	6.8	16:50	9.3	12	w.	10:50	18.0	22:57	17.7	4:34	7.5	17:10	8.4
13	Tu.	11:31 1	7.4	23:26	18.2	5:24	6.1	17:42	8.3	13	Th.	11:27	18.8	23:42	18.4	5:21	7.0	17:51	7.3
14	w.		• • • •	12:07	18.2	6:08	5.5	18:20	7.3	14	F.			12:01	19.6	5:58	6.6	18:25	6.1
15	Th.	0:07 1	18.9	12:39	19.0	6:42	5.0	18:52	6.4	15	Sa.	0:21	19.1	12:33	20.4	6:29	6.3	18:57	5.1
16	F.	0:42 1	9.4	13:09	19.6	7:09	4.7	19:21	5.5	16	5.	0:59	19.7	13:04	20.9	6:59	6.1	19:28	4.4
17	Sa.	1:16 1	19.8	13:38	20.1	7:35	4.7	19:49	5.0	17	M.	1:36	20.0	13:34	21.3	7:28	6.2	20:00	3.8
18	5.	1:50 2	20.0	14:06	20.4	8:00	4.8	20:18	4.6	18	Tu.	2:12	20 · 1	14:05	21.6	7:58	6.4	20:33	3.6
19	M.	2:25 1	19.9	14:35	20.5	8:27	5.2	20:49	4.5	19	. W.	2:49	19.9	14:38	21.5	8:31	6.8	21:09	3.8
20	Tu.	3:01 1	19.5	15:06	20.4	8:57	5.8	21:24	4.6	20	Th.	3:28	19.4	15:15	21.1	9:08	7.4	21:49	4.1
21	w.	3:39 1	18.7	15:40	20.1	9:32	6.5	22:05	4.9	21	F.	4:11	18.7	15:59	20.4	9:52	8.0	22:36	4.6
22	Th.	4:21 1						22:53	5.4	22	Sa.			16:52				23:31	5.3
23	F.	5:13 1	ļ					23:51	5.9	23	\$.			17:57					
24	Sa.	6:18 1								24	M.			19:16				13:02	9.3
25	5.	7:35 1	- 1					13:04	9.3	25	Tu.			20:37				14:24	8.8
26	M.	8:51 1						14:28	9.1	26	W.			21:48		43		15:40	7.6
.27	Tu.	9:59 1	i					15:54	8.0	27	Th.			22:51				16:45	6.1
28	W. Th.	10:58 1						17:01	6.3	28	F.			23:47				17:43	4.5
:30	Th. F.	11:48 2						17:58	4.6	30	Sa.			12:03 12:44				18:32	3.2
.ov	F.	0:03 2	21.0	12.51	21.7	0:22	3.9	18:46	3.2	31	ж. М.			13:24				19:15	2.4
										31	TAT.	1:24	21.1	13:24	20.0	7.17	3.1	19.07	2.7

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to nidmight.

The Height is in feet and tenths of a foot measured from the level of extreme Low Water.

Tidal Differences for the northern part of the coast of British Columbia and for the Queen Charlotte islands, are given on pages 6 and 7. Tables and other data for the time of Slack Water in the various narrows, follow the Tide Tables.

				NO	OVE	MBER	,		1					DE	ECE	MBER			=
.e.		Н	IGH '	Water		Lo	w V	VATER		e		H	igh \	WATER		Lo	ow Wa	TER.	
Date.	Day.	Time.	H't	Time	H't	Time.	H't	Time	. H't	Dat	Day	Time	. H't	Time.	H 't	Time.	H't T	ime.	H't
		н. м.	FT.	н. м.	FT.	н. м.	FT.	н. м.	FT.			н. м.	FT.	н. м.	FT.	н. м.	FT. H	. M.	FT.
1	Tu.	2:09	21.0	14:03	22.7	7:57	6.2	20:38	2.4	1	Th.	2:39	20.2	14:18	21.9	8:19	8 · 1 20	:59	3.5
2	w.	2:53	20.6	14:42	22.2	8:36	7.0	21:18	3.2	2	F.	3:19	20.0	14:57	21 · 1	8:57	8.5 21	:36	$4 \cdot 2$
3	Th.	3:37	20.0	15:22	21.2	9:16	7.9	21:59	4.2	3	Sa.	3:58	19.6	15:37	20 · 1	9:37	9.0 22	:12	5.1
4	F.	4:23	19.2	16:05	20.0	9:59	8.8	22:42	5.3	4	\$.	4:39	19.1	16:20	19.1	10:21	9.6 22	:50	6.1
5	Sa.	5:12	18.4	16:53	18.7	10:48	9.7	23:28	6.5	5	M.	5:24	18.6	17:10	17.9	11:12	9.9 23	:31	$7 \cdot 0$
6	\$.	6:07	17.8	17:50	17.6	11:46	$10 \cdot 4$			6	Tu.	6:15	18.4	18:11	16.9		12	2:10	10.1
7	M.	7:10	17.5	18:58	16.6	0:21	$7 \cdot 5$	12:55	10.7	7	w.	7:10	18.2	19:18	16.3	0:18	7.8 13	:14	10.1
8	Tu.	8:15	17.5	20:13	16.3	1:21	8.1	14:12	10.4	8	Th.	8:06	18.3	20:26	16.1	1:12	8.4 14	:21	$9 \cdot 5$
9	w.	9:10	17.9	21:22	16.5	2:25	8.4	15:22	9.7	9	F.	8:59	18.7	21:31	16.4	2:11	9.0 15	5:29	8.7
10	Th.	9:56	18.5	22:18	17.0	3:27	8.5	16:20	8.6	10	Sa.	9:47	19.2	22:30	17.0	3:12	9.2 16	3:28	$7 \cdot 6$
11	F.	10:37	19.2	23:06	17.9	4:20	8.3	17:09	$7 \cdot 5$	11	\$.	10:33	20.0	23:22	17.7	4:09	9.2 17	:18	6.3
12	Sa.	11:16	20 · 1	23:49	18.6	5:07	8:1	17:51	6.2	12	M.	11:16	20.9			5:01	8.9 18	3:01	5.0
13	\$.	11:53	20.8			5:48	7.8	18:29	5.1	13	Tu.	0:08	18.7	11:57	21.8	5:48	8.5 18	3:42	3.7
14	M.	0:30	19.3	12:29	21.6	6:25	7.6	19:05	4.0	14	W.	0:51	19.4	12:37	22.5	6:32	7.9 19	:22	2.8
15	Tu.	1:10	19.9	13:04	22 · 1	7:01	$7 \cdot 4$	19:40	3.3	15	Th.	1:33	20.1	13:18	23.0	7:15	7.5 20	:01	$2 \cdot 2$
16	w.	1:49	20.2	13:39	$22 \cdot 5$	7:36	7.2	20:16	2.9	16	F.	2:15	20.6	14:01	23.0	7:57	7 · 1 20	:41	$2 \cdot 1$
17	Th.	2:29	20.2	14:16	22.4	8:13	7.4	20:54	2.9	17	Sa.	2:58	20.7	14:46	22.7	8:41	7.1 21	:22	$2 \cdot 4$
18	F.	3:12	20.0	14:56	22.0	8:53	7.7	21:35	$3 \cdot 2$	18	5.	3:44	20.6	15:35	21.8	9:29	7.3 22	:06	$3 \cdot 2$
19	Sa.	3:59	19.7	15:41	21.2	9:39	8.1	22:22	4.0	19	M.	4:35	20.4	16:29	20.6	10:24	7.5 22	:55	$4 \cdot 2$
20	\$.	4:51	19.2	16:36	20.1	10:34	8.6	23:15	4.8	20	Tu.			17:33			7.7 23	:48	$5 \cdot 5$
21	M.	5:49	18.9	17:42	19.0	11:38	8.9			21	W.			18:46			12		7.8
22	Tu.	6:52	18.7	18:58	18.1	0:14	5.8	12:51	8.8	22	Th.			20:03		0:46	6.8 13		7.6
23	W.			20:16				14:11	8.3	23	F.			21:18		1:51	7.8 15		7.0
24	Th.			21:31				15:26	7.3	24	Sa.			22:23			8.6 16		6.1
25	F.			22:37				16:33	6.0	25	5.			23:19			8.9 17		5.1
26	Sa.			23:35				17:31	4.7	26	М.					5:13	8.9 18		4.3
27	\$.							18:20	3.6	27	Tu.			11:58			8.7 18		3.7
28	M.			12:21				19:02	3.0	28	W.			12:42		6:47	8.5 19		3.4
29	Tu.			13:01				19:42	2.8	29	Th.			13:23			8.3 20		3.3
30	W.	1:57	20.3	13:40	22.3	7:40	7.6	20:21	2.9	30	F.			14:02			8 • 2 20		3.6
										31	Sa.	2:56	20.0	14:40	21.0	8:39	8.2 21	:07	4.1

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The HEIGHT is in feet and tenths of a foot measured from the level of extreme Low Water.

Tidal Differences for the northern part of the coast of British Columbia and for the Queen Charlotte islands, are given on pages 6 and 7. Tables and other data for the time of Slack Water in the various narrows, follow the Tide Tables.

			JANUA	RY]	FEBRUA	RY.	
Dane.	Day.	Нісн	WATER.		WATER.	Moon.	Date.	Day		WATER.	Low V	WATER.
i	Ã	Morn'g.	After'n.	Morn'g.	After'n.	M	ñ	Ã	Morn'g.	After'n.	Morn'g.	After'n.
	Sa. So. M. Tu. W. Th. Sa. Sa. W. Th. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. Sa. M. Tu. M. Th. Sa. M. Tu.	H. M. 6 59 8 00 8 58 9 52 10 41 11 25 0 27 1 07 1 43 2 17 2 50 3 23 3 57 4 34 5 15 6 04 7 02 8 06 9 12 10 13 11 08 0 12 2 25 3 23 3 57 4 34 4 40 5 29 6 23 7 21	H. M. 19 31 20 46 21 54 22 52 23 42 12 06 12 45 13 23 14 00 14 36 15 12 15 50 16 31 17 21 18 25 19 42 21 06 22 17 23 18 12 00 12 50 13 39 14 27 15 14 16 02 16 53 17 53 19 04 20 17	H. M. 0 21 1 19 2 25 3 33 4 35 5 29 6 14 6 53 7 30 8 06 8 42 9 19 9 58 10 40 11 26 0 22 2 31 2 31 4 52 5 53 6 48 7 39 8 29 9 17 10 03 10 52 11 46	H. M. 13 26 14 41 15 50 16 48 17 37 18 19 18 57 19 33 20 07 20 39 21 40 22 12 23 30 12 21 13 29 14 45 15 56 16 58 17 52 18 42 19 29 20 14 20 57 21 39 21 22 21 23 30 42 21 39 22 48 23 50	S	1 2 3 4 4 5 6 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	Tu. W. Th. Sa. S. M. Tu. W. Th. Sa. S. M. Tu. W. Th. Sa. M. Tu. W. Th. F. Sa. M. Tu. Th. Th. Th. Th. Th. Th. Th. Th. Th. Th	H. M. 8 222 9 24 11 08 0 05 0 43 1 18 150 2 21 25 1 2 5 18 6 15 7 22 8 38 9 49 10 51 11 45 0 35 1 18 2 00 2 41 3 21 4 45 5 33	H. M. 21 29 22 31 23 22	H. M. 1 45 2 59 4 12 5 09 4 4 12 5 09 45 5 54 4 8 23 8 57 7 12 10 10 10 53 11 44 11 5 9 42 6 38 7 28 8 15 8 59 9 42 2 10 26 11 14 12 10	H. M. 15 16 16 22 17 16 18 39 19 12 19 43 20 42 21 12 21 44 22 19 22 58 14 06 15 30 16 37 17 33 18 23 19 08 19 51 22 31 22 31 22 31 22 31 32 3 59
-			MARCI	Н.		1				APRIL		
	Tu. W. Th. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. Sa.	H. M. 6 32 7 400 8 49 9 500 100 444 111 311 00 155 00 466 1 445 2 156 440 8 114 335 100 38 11	H. M. 19 35 20 52 22 202 22 58 23 41 11 12 48 13 59 14 33 15 07 15 43 16 31 17 36 18 52 20 14 21 30 22 32 23 23 23 23 21 30 22 32 23 23 21 59 12 17 30 22 32 23 23 24 21 30 25 20 14 21 30 22 32 23 23 24 25 26 67 27 13 14 18 57 19 67 19 67	H. M. 0 58 2 24 3 45 4 51 5 42 6 22 6 55 7 27 7 58 8 30 9 04 9 42 10 25 11 17 0 21 1 42 3 16 4 31 5 32 6 25 7 12 7 55 8 37 9 18 9 59 10 42 11 29	H. M. 13 16 14 28 15 41 - 16 43 17 34 18 15 18 48 19 17 20 13 20 42 21 13 21 48 22 29 23 18 12 21 13 38 15 01 16 12 17 09 17 59 18 46 19 29 20 09 20 47 21 24 22 02 23 26 12 26 12 26 13 35	S E S	1 2 3 4 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 22 23 24 25 26 27 28 29 30	F. Sa. M. Tu. V. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. Sa. M. Tu. V. Th. Sa. M. Tu. V. Th. Sa.	H. M. 8 14 9 21 10 16 11 01 11 42 0 09 0 42 1 14 14 5 2 16 2 48 3 24 4 13 5 18 10 22 11 18	H. M. 21 23 22 17 23 00 23 35	H. M. 1 444 3 20 4 29 5 18 5 56 6 30 7 03 7 36 8 10 8 46 9 26 10 12 11 03 0 14 1 36 3 09 4 18 5 17 6 08 6 54 7 37 8 18 8 58 9 37 10 16 10 56 11 42 1 06	H. M. 14 52 15 57 16 50 17 32 18 07 18 40 19 12 19 43 20 15 20 50 21 28 22 12 23 06 12 02 13 12 14 31 15 43 16 44 17 36 18 19 18 59 19 38 20 17 20 56 21 36 22 18 23 04 23 59 12 39 13 44

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The RANGE of the tide is 5 per cent greater than at Port Simpson at both springs and neaps. The rise is therefore slightly greater than in the Tide Tables for Port Simpson.

			25.125										=
			MAY.		X7					JUNE.		X7	1 .
Date.	Day.		WATER.		VATER.	Moon.	Date.	Day.		WATER.	Low V		Moon.
		Morn'g.	After'n.	Morn'g.	After'n.		I		Morn'g.		Morn'g.	After'n.	-
1 2 3 4 4 5 5 6 6 7 7 8 8 9 10 11 12 13 14 15 5 16 6 19 20 21 22 22 22 24 25 6 29 30 31	S. M. Tu. W. Th. F. Sa. S. M. Tu. W. Th. F. Sa. S. M. Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. Tu.	H. M. 8 366 9 35 10 28 11 16 1 54 2 35 5 20 6 41 7 52 8 55	H. M. 21 28 22 15 22 54 23 30 12 00 12 41 13 21 14 42 15 25 16 13 17 10 18 20 38 21 36 22 28 23 14 23 57 12 41 13 24 14 04 14 43 15 23 16 06 54 17 48 18 45 19 41 20 34 21 24	H. M. 2 266 3 41 4 38 5 21 5 59 6 36 7 12 7 49 8 29 9 13 10 00 10 50 11 46 0 09 1 30 2 52 4 03 5 54 6 38 7 20 8 00 8 00 8 38 9 15 9 51 10 29 11 09 11 53 0 22 1 34 2 50	H. M. 14 51 15 48 16 36 17 18 35 19 12 20 30 21 14 22 03 23 00 15 12 50 14 00 15 12 16 15 17 09 17 55 18 37 19 18 19 58 20 37 21 16 21 56 22 38 23 24 12 44 13 42 14 42	E	1 2 3 4 4 5 6 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22 24 25 6 27 28 29 30	W. Th. F. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. F. Sa. M. Tu. Th.	H. M. 9 52 10 44 11 33	H. M. 22 11 22 54 23 34 12 18 45 16 16 06 17 01 18 02 19 06 20 06 21 02 21 54 22 43 23 29 12 20 13 03 13 44 14 24 15 03 15 41 16 20 17 01 17 01 17 01 17 01 18 39 19 38 20 35 21 28	H. M. 3 53 4 444 5 29 6 12 6 54 7 35 8 17 9 00 9 45 10 33 11 24	H. M. 15 41 16 34 17 200 18 04 18 47 19 31 22 00 22 55 44 12 21 13 23 14 30 15 36 16 35 20 15 20 54 21 33 32 22 13 32 22 54 23 38 12 37 13 36 14 46	N E S
			JULY.							AUGUS	т.		
1 2 2 3 4 4 5 6 6 7 8 9 10 111 122 13 14 15 16 16 17 18 19 20 21 22 23 24 25 5 29 30 31	F. Sa. S. M. Tu. Sa. M. Th. F. Sa. M. Th. F. Sa. M. Th. F. Sa. M. Th. F. Sa. M. Tu. W. Th. F. Sa. S. M. Tu. W. Th. F. Sa. S.	H. M. 10 17 11 11 11 12 02	H. M. 22 18 23 05 23 51 12 51 13 38 14 22 15 05 15 49 16 36 17 30 18 31 19 35 20 34 21 28 22 18 23 05 23 49 12 47 13 25 14 01 14 36 15 10 15 44 16 19 16 56 17 37 18 30 19 36 20 43 21 46 22 42	H. M. 4 06 5 02 5 51 6 38 7 23 8 07 8 50 9 33 10 17 11 03 21 4 25 5 18 6 03 6 43 7 19 7 54 8 28 9 00 11 0 02 10 34 11 09 11 52 0 56 2 12 3 27 4 31	H. M. 15 52 16 49 17 43 18 36 19 28 20 18 21 07 21 56 22 46 23 39 12 46 13 51 15 04 16 13 17 11 17 59 18 40 19 18 19 55 20 31 21 06 21 42 22 20 23 03 12 49 13 53 12 49 13 58 15 14 16 26	N E S	1 2 3 4 4 5 6 6 7 7 8 9 10 11 1 12 13 14 4 15 6 17 7 18 9 20 21 22 22 23 24 25 5 27 28 30 31	M. Tu. W. Th. F. Sa. M. Tu. W. Th. Sa. SM. Tu. W.	H. M. 11 40	H. M. 23 34 12 28 13 14 13 59 14 43 15 26 16 10 16 57 17 49 19 54 20 58 22 51 23 38 12 26 13 00 13 33 14 05 14 36 15 37 16 16 48 17 39 18 48 20 05 21 20 05 21 20 05 22 25 23 22 12 07	H. M. 5 28 6 20 7 08 7 52 8 35 7 52 8 10 40 11 24 2 44 3 57 4 59 5 48 7 04 7 36 8 35 9 03 2 10 02 10 36 11 20 0 16 1 29 2 5 00 4 03 5 06 6 00	H. M. 17 299 18 24 19 14 20 03 20 51 21 39 22 28 23 19 12 14 13 16 14 32 15 50 16 54 17 44 18 25 19 02 19 37 20 11 20 44 21 18 21 53 22 30 23 16 12 16 13 25 14 45 16 10 17 21 18 18	E S

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The RANGE of the tide is 5 per cent greater than at Port Simpson at both springs and neaps. The rise is therefore slightly greater than in the Tide Tables for Port Simpson.

		s	EPTEMB	ER.						OCTOBE	R.		
te.	.V.	High '	WATER.	Low V	WATER.	Moon.	Date.	÷	Нісн	WATER.	Low V	VATER.	Moon.
Date.	Day.	Morn'g.	After'n.	Morn'g.	After'n.	Mo	Da	Day.	Morn'g.	After'n.	Morn'g.	After'n.	Mo
1 2 3 4 4 5 5 6 6 7 8 9 10 11 12 13 13 14 15 16 17 18 19 20 21 22 23 24 25 6 26 27 28 8 29 30	Th. F. Sa. S. M. Tu. W. Th. F. Sa. S. M. Tu. W. Th. F. Sa. S. M. Tu. W. Th. F.	H. M. 0 13 1 02 37 3 24 4 12 5 03 6 04 7 16 8 33 9 42 10 39 11 25 12 02	H. M. 12 52 13 35 14 16 14 56 15 37 16 21 17 09 18 05 19 13 20 28 21 34 22 31 19 23 59 12 33 13 03 13 32 14 00 14 29 15 31 16 09 17 02 18 13 19 37 20 59 22 09 23 08 23 59 12 26	H. M. 6 46 7 29 8 11 8 51 9 30 10 08 10 47 11 33 0 43 1 59 3 19 4 26 5 16 5 56 6 30 7 01 7 31 8 00 8 28 10 06 10 53 11 52 0 56 2 15 3 33 4 38 5 33 6 20	H. M. 19 06 19 50 20 33 21 17 22 02 22 49 23 40 12 36 14 06 15 32 16 37 17 27 18 08 18 42 19 15 19 47 20 18 20 50 21 24 22 03 22 51 23 48 13 06 14 32 15 56 17 05 18 01 18 50	E S	1 2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22 23 24 25 26 27 28 28 29 20 20 21 21 21 21 21 21 21 21 21 21 21 21 21	Sa. Sa. M. Tu. W. Th. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. M. Th. Sa. M. Tu. Sa. M.	H. M. 0 48 1 34 2 19 3 04 3 50 4 38 5 35 6 43 7 58 9 04 9 58 10 42 11 18 11 52 0 12 0 50 1 27 2 04 2 42 3 22 4 07 5 00 6 04 7 16 8 32 9 36 10 29 11 16 11 59 0 33 1 19	H. M. 13 08 13 49 14 29 15 08 16 31 17 24 18 32 19 56 21 04 22 01 22 49 23 32 12 25 13 59 14 31 15 06 15 46 16 38 17 48 19 14 20 41 21 54 22 54 23 45 12 40 13 20	H. M. 7 04 7 46 8 27 9 07 9 48 10 30 11 15 0 08 1 14 2 26 3 33 4 28 5 12 5 48 6 21 6 53 7 24 7 55 8 27 9 03 9 47 10 40 11 43 0 32 1 42 2 58 4 06 5 04 5 54 6 38 7 20	H. M. 19 36 20 19 21 01 21 43 22 26 23 13 12 14 13 31 15 06 16 17 17 08 17 44 18 17 18 49 19 22 19 56 20 31 21 08 21 49 22 36 23 30 12 59 14 23 15 39 16 45 17 42 18 32 19 58	S
		. 1	NOVEMB	ER.						DECEMB	ER.		1
1 2 3 4 5 6 6 7 8 9 9 10 11 12 13 14 15 16 17 17 18 18 19 20 21 22 22 23 24 25 26 27 27 28 28 29 20 20 20 20 20 20 20 20 20 20 20 20 20	Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. W. Th. F. Sa. M. Tu. W.	H. M. 2 04 2 48 3 32 4 18 5 10 6 10 7 16 8 16 9 09 56 10 36 11 13 11 49 0 28 1 08 1 47 2 27 3 10 3 57 4 49 5 48 6 55 5 6 8 00 9 01 9 57 10 47 11 32 0 18 1 05 1 49	H. M. 13 59 14 37 15 16 15 58 16 48 17 53 19 07 20 20 21 22 21 16 23 04 23 47 12 58 13 33 14 10 14 50 15 36 16 30 17 38 18 58 20 17 21 29 22 33 23 29	H. M. 8 01 8 41 9 22 10 05 10 52 11 44 0 19 1 16 2 22 5 5 03 5 41 6 18 6 54 7 31 1 34 0 11 1 16 2 24 3 33 4 33 5 26 6 14 6 57 7 38	H. M. 20 39 21 200 22 02 22 45 23 30	S E S	1 2 3 4 4 5 6 6 7 8 9 10 111 12 13 14 15 16 17 18 19 20 21 12 22 3 24 25 5 26 27 28 8 29 30 31	Th. F. Sa. M. W. Th. Sa. M. W. Th. Sa. M. Tu. Sa. Sa. Sa. Tu. W. Th. Sa. Sa.	H. M. 2 31 3 12 3 54 4 38 5 27 6 21 7 19 8 12 9 01 11 13 0 05 0 48 1 30 2 12 2 55 3 40 4 29 9 5 24 6 24 7 27 8 31 1 11 10 07 0 53 11 11 11 0 07 0 53 11 34 2 13 2 51	H. M. 14 18 14 57 15 37 16 21 17 10 18 12 20 32 21 33 22 28 23 18 11 53 14 42 15 30 16 22 16 23 15 11 56 12 39 13 20 13 59 14 36	H. M. 8 18 8 59 9 42 10 28 11 16 11 10 2 11 16 11 10 11 10 11 10 11 10 11 11 11 11 11	H. M. 20 59 21 36 22 13 32 22 51 23 31 12 08 13 11 14 23 15 29 16 25 17 12 17 55 18 37 19 18 19 58 20 39 21 21 22 54 23 45 12 28 13 44 15 10 16 20 17 16 18 03 18 46 19 26 20 04 21 14	E

The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The RANGE of the tide is 5 per cent greater than at Port Simpson at both springs and neaps. The rise is therefore slightly greater than in the Tide Tables for Port Simpson.

SLACK WATER TABLES

FOR

THE PASSES AND NARROWS OF THE PACIFIC COAST FOR 1921

EXPLANATIONS.

First narrows.—Based on observations of slack water during six months in 1901, a full year from March, 1906, to March, 1907, and thirteen additional months in summer, in the years 1916, 1917 and 1918 to 1920. A comparison of the later and earlier years has enabled a slight change in time to be allowed for, which has resulted

from the dredging to widen the channelway.

In the Strait of Georgia the high waters keep very nearly to the same level, and the lower low water falls much below any of the other tides. The turn of the current in First narrows is similarly affected; as the observations show that the difference in the time of turn, relatively to the tide at Sand Heads, is practically the same for the higher high water and both the half tides, while the turn at the lower low water is later than any. This distinction is made in calculating the tables of slack water. There is also an annual variation with the declination of the sun during the course of the year, which is allowed for.

Active pass.—Based on observations of slack water during 16 months in 1905 and 1906, and for a complete year from May, 1916, to April, 1917. These were taken at Burrill Point, near the eastern end. Observations obtained during surveys by H.M.S. Egeria in the two seasons of 1904 and 1905 were also utilized for comparison.

Porlier pass.—Based on observations of slack water during two periods of 18

months each, in 1906 and 1907, and in 1914 and 1915.

It has been found after extended investigation, that High-water slack in these two passes corresponds best with the tide in the open Pacific at Clayoquot; and that Low-water slack accords with the tide in the Strait of Georgia. In the differences with the tide at Clayoquot, there is annual variation which is allowed for; and in the differences for Active pass, it is necessary to distinguish the large and half tides in the Strait of Georgia. The Slack Water tables are calculated in accordance with these relations.

Other passes off the Strait of Georgia.—It has now been ascertained that the time of slack water in several other passes in this region can best be found by difference of time with the Slack Water tables above indicated. The reason of this is that the variations between slack water and the time of the tide, are concordant in similarly situated passes. The difference in the time of slack water between two corresponding passes may thus prove to be closely constant, as the variations between slack water and the time of the tide are the same for both, and therefore disappear in the comparison of the passes with each other. A table of these differences is given for the passes for which they are now accurately determined, including Second narrows in Burrard inlet.

Baynes channel.—Situated ten miles east of Victoria. The difference with the tide at Victoria is based on observations during three months in 1912. This relation was found satisfactory, as the behaviour of the current corresponds with the character

of the Victoria tides.

Yuculta rapids.—The most easterly of the northern passes, next the mainland. Computed by difference of time with Seymour narrows; based upon simultaneous observations of slack water in the two passes during 13 months in all, in the two seasons of 1910 and 1913.

Seymour narrows:—The length of observations on which the Slack Water tables are based, and the method of calculation, are explained on the pages following the tables; and data are there given for the Northern passes in which the time of slack water can be found with reference to Seymour narrows.

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IMPORTANCE OF CORRECT TIME.

In making use of the Tables of Slack Water, it is important that captains should have the time correctly, especially when slack water only lasts for a few minutes. When a pass is not reached before the current turns, it is usually the time on the steamer that is at fault, rather than the Tables themselves.

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The Time used is Pacific Standard, for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

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farthest south of the equator.

For Second narrows, see the difference of time in the table on page 64.

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For Second narrows, see the difference of time in the table on page 64.

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The Velocity of the current at the maximum, is 6 to 8 knots.

The Moon's Declination is indicated thus: E, moon on the equator; N, moon farthest north, and S, moon farthest south of the equator.

For Second narrows, see the difference of time in the table on page 64.

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The duration of Slack in the Yuculta is 12 minutes on the average.

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Proposition of the last of the			MAY.							JUNE			
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The Time used is Pacific Standard for the 120th Meridian west. It is counted from 0 to 24 hours, from midnight to midnight.

The duration of Slack at either High or Low Water is 12 minutes on the average.

The Moon's Declination is indicated thus: E, moon on the equator; N, moon farthest north, and S, moon farthest south of the equator. For the other rapids and narrows in this region, see the differences of time in the table on page 63.

SAILING DIRECTIONS.—SEYMOUR NARROWS, B.C.

The following directions are given by Captain B. L. Johnson, D.S.O., late Superintendent of British Columbia Pilotage service, who has navigated all classes of vessels through these narrows. In these narrows, the ebb runs northward and the flood southward.

DURING THE EBB.

North bound.—Pass Race Point at a distance of one cable, heading directly for broken water on Ripple rock. Pass Maud Island Lighthouse Point at a distance of about 300 feet, or just outside the swirl off the point, steering for northern edge of broken water from Ripple rock; then with this swirl abaft the beam, port easy until in mid-channel off North bluff.

Warning.—If Maud island Lighthouse Point is given a wide berth and a course is set to clear Ripple rock, the current is on the starboard quarter, and the ship is set towards the Rock, and when porting helm to avoid this, there is danger of being forced into the eddy.

The narrows can be safely run, north bound, at any stage of the ebb, by a handy ship if fitted with good steering gear. The broken water over Ripple rock can be

plainly seen even on the darkest nights when the current has any strength.

South bound.—This is the most awkward passage to make through Seymour narrows and should not be attempted except at first and last hours of ebb, and then only by handy ships with at least thirteen knots speed. On big tides, that is, tides with more than thirteen feet range at Port Simpson, a speed of sixteen knots and a vessel particularly quick to answer her helm is necessary for the safe passage during the second and third hours of ebb.

Directions.—Keep mid-channel until North bluff is abeam and then head for westerly extreme of Maud island, keeping on edge of eddy. As Canoe pass opens, be lively with starboard helm. Meet the current fair end on, as Canoe pass closes. After passing Ripple rock, do not hug Maud island too close, as there is an inset between the eddy and main current a short distance northwest from Lighthouse Point. The strongest current is off this point and the over-fall can be clearly distinguished during the second, third and fourth hours of ebb.

Strangers finding the ebb running are advised to navigate at slack water only. The passage should be used with caution at night with any strength of current, even

by those of intimate local knowledge.

DURING THE FLOOD.

North bound.—After passing Copper cliffs, keep to starboard of mid-channel to avoid heavy swirls off Race Point; round this point at a distance of two cables and head for north point of Menzies bay, with ship's head about W. by S. magnetic. As the channel opens, swing easy until ship is heading up mid-channel between Maud island and Ripple rock. Avoid being set towards Maud island. When Lighthouse Point is abaft the beam, the starboard shore may be favoured, as the current here is quite straight. When Canoe pass opens, work into mid-channel to avoid eddying and broken water off North bluff.

The strongest current is off the extreme west point of Maud island. The overfall here is quite distinct. A thirteen-knot vessel may work up as far as Ripple rock on any tide, but a speed of at least seventeen knots is required to drive through at full strength of spring tides. It is advisable to make the turn, so as to be stemming the current when passing Lighthouse Point, where the straight current has least width. The passage through Seymour narrows against the flood is safe and easy

if a vessel has sufficient power.

South bound.—Keep mid-channel until North bluff is abeam, then head between Ripple rock and Maud island, keeping this general southeast course until Gowlland harbour is closing with Race Point; then starboard to about E. by N. keeping this

general course until Cape Mudge light is well open off Orange Point, then swing easy and favour port shore to obtain full benefit of fair current.

The line of straight current during the flood can be clearly distinguished on a

calm night.

HECATE STRAIT.

The following information regarding Hecate strait, between the Queen Charlotte islands and the mainland, was obtained from Captain A. Freeman, who has been engaged in steamer fishing in those waters during many years, at all seasons, summer and winter.

In general, the flood coming in through Dixon entrance turns southeastward and meets the flood, coming up from the south, in the middle of Hecate strait about the latitude of Skidegate. This general behaviour accords with the indications given by the arrows on the chart.

A change in this behaviour occurs with the season of the year. In winter and spring the flood streams meet in the latitude of Cape Ball and Browning entrance (Lat. 53° 43'), but in the late summer, from about the middle of July to the middle

of September, they meet some 25 or 30 miles farther south.

The flood stream through Dixon entrance, on reaching the northern end of Hecate strait, divides at a point midway between Rose spit and Dundas island. The weaker part of the stream sets northward past Dundas island, no doubt because of the indraught towards Portland canal and the neighbouring inlets. The main flood turns southeastward into Hecate strait; and in winter the flood and ebb are here very regular; but in the late summer, as above indicated, the flood stream greatly exceeds the ebb. In August especially, there may be $2\frac{1}{2}$ to 3 knots of flood, with little appreciable ebb or only slack water.

These changes in the tidal streams are similar to the annual variation in the

time of the tide itself, which gives rise to variation in the Tidal Differences.

Farther south, where the strait widens, in the latitude of Porcher island, the tidal streams rarely exceed one knot in the central part of the strait. But along shore from Cape George to Porcher island to the Butterworth rocks, the strongest set is northwestward with the ebb, and the flood is hardly appreciable. Within five miles of the shore, the ebb stream may exceed 3 knots per hour.

The southern end of Hecate strait is so wide, that the tidal streams are quite weak except close to the shore of the Queen Charlotte islands. The flood is there

northwestward and the ebb southeastward.

Off the southern end of the Queen Charlotte islands, the direction of the flood and ebb is northeast and southeast, around the south extreme of Moresby island.

DIXON ENTRANCE.

The following information was obtained during surveys by H.M.S. *Egeria*, from observations between April and October in 1907.

Masset harbour.—At a point five miles within the entrance. The flood stream continues to run for $2\frac{1}{2}$ hours and the ebb stream for $2\frac{1}{2}$ hours after it is high or low water by the shore. The maximum velocity at springs is 5 knots on the flood and $5\frac{1}{2}$ on the ebb. During the largest tides the duration of slack water is very brief.

Naden harbour.—In Alexandra narrows, the flood stream continues to run for 15 minutes and the ebb stream for 20 minutes after it is high or low water by the shore. The flood attains a velocity of 2 knots and the ebb $2\frac{1}{2}$ knots.

Parry passage.—In this passage, the tidal streams turn 1 hour 08 m. before it is high and low water by the shore. At the springs, the flood attains a velocity of 5 knots and the ebb 3 knots. The tidal streams in the Solide channel do not exceed 3 knots.

The time of the turn of these tidal streams may be found by the use of the Tidal Difference for the locality in question, together with the time of turn with reference to the local tide as here stated.

SLACK WATER IN THE NORTHERN PASSES.

The northern passes may be taken to include Seymour narrows, the Yuculta, and several others in the complex of channels and passages in that region, in which rapids occur during the run of the tidal streams. A knowledge of the time of slack water in these is of the first importance to the lumber industry in towing booms, as

well as for navigation in general.

Seymour narrows.—Observations of the turn of the current in Seymour narrows were obtained by the United States Coast Survey in 1897. Further observations were obtained by the Tidal Survey in 1910 and 1913, taken simultaneously at Seymour narrows and the Yuculta, by two observers in camp, with chronometers for accurate time, during six to nine months in each season. Observations were also taken here in 1919 to 1920, for comparison with Camp Point during the summer

season, and to secure better values for the winter months.

In Seymour narrows, there is no definite relation between the time of slack water and high or low water in the locality itself; as the time-interval between them varies from ten minutes to four hours. Exhaustive investigations based on the observations obtained, have proved that the time of slack water is more closely related to the tide of the open Pacific than to any type of tide in the locality, or in the land-locked region of the Strait of Georgia. Satisfactory methods of calculation with reference to Port Simpson, one of the principal tidal stations on the open Pacific, were eventually discovered.

For High-water slack, the time-interval with Port Simpson is fairly constant; but a variation is allowed for, which accords with the moon's phases. For Low-water slack, there is a pronounced alternation in the time-interval, amounting to over an hour early or late, on successive tides. This has been reduced to law, the time-intervals forming a divergent series which alternates with the moon's upper and lower transits, the divergence increasing up to the maximum declination of the moon. The Slack Water tables for Seymour narrows are calculated on these principles.

OTHER PASSES.—Seymour narrows and the Yuculta are the two extreme passes, next Vancouver island and next the mainland. It has now been ascertained that the time of slack water in the intermediate passes, can best be found by a difference of time with Seymour narrows, as shown in the table opposite. The results given are based on observations of slack water for the following periods, which were taken by parties camped on shore, with chronometers for correct time:—At the Yuculta for $13\frac{1}{2}$ months in all, in the two seasons of 1910 and 1913; in Chatham channel for 5 months in 1917; in Wellbore channel for $6\frac{1}{2}$ months in 1916; at Green Point rapids for 5 months in 1917; in Blind channel for $5\frac{1}{2}$ months in 1918; at Hole-in-the-Wall for 7 months in 1913, and a full year in 1917 to 1918; at Surge narrows for 7 months in 1918 to 1919; and off Camp Point in Johnstone strait, for $5\frac{1}{2}$ months in 1919.

The various rapids require description, as they are not always on the charts, and some of them are still unsurveyed. They are as follows:—Yuculta rapids—There are rapids in places for four miles from Dent islands to Stuart island. The time in the tables of Slack Water is for the true narrows, opposite the south end of Stuart island. Arran rapids—A passage north of Stuart island, little used, leading from the middle Yuculta to Bute inlet. It is locally pronounced, Iron rapids. Surge narrows—Marked on the chart, opposite Read island. This pass is avoided except by local steamers; as the channel turns abruptly at a right angle, and the water thus makes its way between a row of uncharted islands, causing dangerous cross-currents. Hole-in-the-Wall—The point for which the time is given, is the west end, next to Okisollo. The current is sharply reversed at the turn. Okisollo—There are two rapids in this channel, and slack is practically at the same time in both. The Lower Okisollo coincides with Hole-in-the-Wall. Green Point rapids—In the western portion of Cordero channel, nearly a mile east of Green Point, which is three miles east of the entrance to this channel on Loughborough inlet. Blind channel—A mile and a half south of Green Point rapids. The chart name, Mayne passage, is not known locally. Whirlpool rapids—At the middle of the length of Wellbore channel. Chatham channel

-Running from the south side of Knight inlet. The time given is for the east end, near Root Point.

These interior channels and passes are extensively used in towing booms of logs, and by local steamers which supply the lumber camps.

TIME OF SLACK WATER.—NORTHERN PASSES.

Table of differences to be subtracted from the time of Slack Water in Seymour narrows. Observations have now been obtained at all the channels and rapids in this table; and values for both the slacks can therefore be given.

Narrows or Rapids.	Reference	Tables.		or High ter slack.		or Low ter slack.
Camp Point, Johnstone strait	Seymour Narr	ows	Subt	. 0 h. 54 m.	Subt	. 1 h. 04 m.
Chatham channel. At the east end	66		66	0 h. 45 m.	66	1 h. 25 m.
Whirlpool rapids, Wellbore channel	46		66	1 h. 46 m.	66	1 h. 51 m.
Green Point rapids, Cordero channel	66	• • • • • • • • • •	66	1 h. 33 m.	66	1 h. 26 m
Blind channel. (Mayne passage)	44		66	1 h. 12 m.	66	1 h. 06 m
Hole-in-the-Wall.* At the west end	44		66	0 h. 52 m.	66	0 h. 57 m
Okisollo. For Upper or Lower rapid	ee	• • • • • • • • •	56	0 h. 50 m.	66	0 h. 53 m
Surge narrows, opposite Read island	66		66	0 h. 45 m.	66	0 h. 43 m

^{*}The duration of Slack water in Hole-in-the-Wall is only 4 minutes on the average. In Surge narrows the

duration is 11 minutes on the average.

For the time of slack in Yuculta rapids, at Dent islands and in Arran rapids, see the Slack Water tables for the Yuculta and the foot notes with them.

SLACK WATER.—SEYMOUR INLET.

The narrow entrance to this inlet is at the inner end of Slingsby channel, which opens off Queen Charlotte sound. The time of slack water in the narrows has no constant relation to the time of the tide in the open sound. From extended investigations, very definite relations were eventually discovered, which enable the time of slack water to be found by the following rules:-

For High Water slack. Add 3 h. 03 m. to the time of high water at Clayoquot.

For Low Water slack. Take the time of high water at Port Simpson and the next following high water at Sand Heads, which is from two to five hours later; and find the mid-time between the two. From this mid-time, subtract 6 h. 05 m. The result will be the time of Low-water slack. (In the Sand Heads tables, a comparison of the heights of the successive tides will show which is high water. The readiest way to find the mid-time between the two high waters, is to add them together and take half the sum of the two. If one tide is before midnight and the other after, care must be taken to notice whether the time thus found is A.M. or P.M. before subtracting the difference given above.)

The duration of slack water is 6 m. on the average.

WEST COAST OF VANCOUVER ISLAND.

From observations taken by a coasting steamer at the request of this Survey, on the run from Cape Cook to Nootka sound, the set was found to be always northwestward and never southeastward. The amount of the set in moderate weather, ranged usually from 1 to $1\frac{1}{2}$ knots per hour. The weakest set during westerly winds was $\frac{1}{2}$ knot, and with strong east wind it increased to 2 or even $2\frac{1}{2}$ knots. This behaviour of the current is confirmed by fishermen on the coast. They give practically the same limits for the variation of the strength according to the direction of the wind; and they state that the set is never southeastward at any time of the day or night, because of tidal influence.

Passes off the Strait of Georgia and among the Gulf Islands.

For three of these passes, First narrows, Active pass and Porlier pass, tables of Slack Water are given in full. These are calculated from the time of the tide at Clayoquot and Sand Heads, by the methods explained before the Tables of Slack Water. (See page 43.)

The time of slack water in the passes mentioned below, can be found by applying the differences indicated, to the Slack Water Tables named on the same line with them. The flood sets northward and the ebb southward in the first four of these passes and

narrows.

Passes and Narrows.	Reference tables.	For High Water slack.	For Low Water slack.	Velocity at maximum.
Boundary pass	Active pass	Subtract 0 h. 05 m.	Add 0 h. 20 m.	4 to 6 knots.
Sansum narrows	66 66	" 0 h. 37 m.	" 0 h. 24 m.	1 to 3 "
Dodd narrows	Porlier pass	" 0 h. 17 m.	Subt. 0 h. 25 m.	8 to 10 "
Gabriola pass	66 66	" 0 h. 04 m.	" 0 h. 15 m.	6 to 8 · "
Second narrows	First narrows	" 0 h. 09 m.	" 0 h. 03 m.	4 to 6 "
Seechelt rapids		Add 1 h. 12 m.	Add 1 h. 35 m.	10 to 12 "

In these passes, the duration of slack current is quite short, except in Sansum narrows, where the strength is less.

Boundary pass.—The differences for this pass are approximate; being the result of 38 observations during surveys by H.M.S. Egeria in 1905, compared with Sand Heads. The result was also checked by correlation with the differences from Port Townsend given in the United States tide tables. The time of slack as found, is for the navigable portion of the pass; as there is often considerable variation from inshore tidal streams.

Sansum narrows.—Observations were obtained during daylight for seven months continuously, from May to November in 1914. After careful comparisons, there was found to be less variation with the time of slack water in Active pass, than with the time of the local tide, or the tide in the Strait of Georgia.

Dodd narrows.—Observations were obtained during twelve and a half months, from April, 1914, to April, 1915. When compared with simultaneous observations in Porlier pass, the difference in the time of slack water in the two passes proves to be remarkably constant. The variations between slack water and the time of the tide are so nearly the same in both passes, that the slack waters themselves are in accord. The duration of slack water is 6 m. on the average.

Gabriola pass.—Observations were obtained during six months, from May to October in 1915, and compared with simultaneous observations in Porlier pass. The above remarks regarding Dodd narrows apply to this pass also. The duration of slack water is 4 m. on the average.

Second narrows.—Observations were obtained during nine months, from July 1919, to March 1920. The differences given are based on a comparison with simultaneous observations in First narrows during this period.

Seechelt rapids.—Observations were obtained during six months, from May to October in 1914. In the Strait of Georgia, Lower low water falls much below any of the other tides; and at this low water, there is at times a variation in the difference with First narrows. When the diurnal inequality is large, the slack at Lower low water will usually be quarter of an hour later than the time obtained by the average difference as above given. The duration of slack water is 9 m. on the average.

Wind influence.—In the passes in the outer chain of the Gulf islands, the currents when strong are little affected by the winds unless they hold in the same direction for at least 12 hours. Northerly gales make the slack earlier at High Water and later at Low Water; and they strengthen the ebb. Southerly gales have relatively less effect, but tend to make the slack earlier at Low Water and later at High Water, and the flood stronger. The short runs on the half tides, having less strength, are more influenced than the long runs.

Baynes channel.—Between Chatham island and Ten-mile Point, east of Victoria. For time of Slack Water at both high and low tide:—

Add 1 hour 20 m. to time of tide at Victoria. Greatest velocity, 3 to 4 knots.

When the tide at Victoria rises or falls continuously during two successive tidal periods, the current also runs continuously in one direction or the other. Hence there are no slack waters where the tides are left blank in the Tide Tables. The above difference applied to the tides which are given in the tables, will therefore furnish all the times of slack water at which the current actually turns.

VICTORIA AND ESQUIMALT HARBOURS.

The following information has been obtained by the Hydrographic Survey, in this region:—

At the entrance to Victoria harbour, off Macauley point, the Flood and Ebb streams both set to the westward with a velocity of $\frac{1}{2}$ to 2 knots.

At the entrance to Esquimalt harbour, off Brothers island, the Flood and Ebb streams both set to the eastward; velocity comparatively low and variable. It is apparent that between these two positions, the set must always be off shore except at slack water.

TIDE AND CURRENT IN THE LONG INLETS.

The time of High and Low Water at the head of the long inlets on the coast is very little later than at the mouth. This has been ascertained by simultaneous observations with tide gauges operating for several months, the time being kept accurately at the mouth and head by the use of chronometers. The results for three inlets are as follows:—

Long Inlets.	H. W.	L. W.
From Whaletown on Cortes island to the head of Bute inlet: distance 52 miles. From comparison of observations in two different seasons at these localities, with the same reference station. From Namu to Bella kula, by Burke channel and Bentinck arm: distance 69 miles. From 144 simultaneous observations. From Hartley bay in Wright sound to Kitimat, by Douglas channel: distance 49 miles. From 222 simultaneous observations.	3 m. later. 2 m. later.	9 m. later. 7 m. later. 4 m. later.

Similar differences may be used to ascertain the time of the tide at the head of other inlets on the coast. The range of the tide at the head of these inlets is only from 2 to 12 per cent greater than at their mouth.

This rapid progress of the tidal undulation must be due to the great depth of such inlets. Where the depth is so great, the whole surface of the inlet rises and falls simultaneously, in correspondence with the impulse at its mouth given by the rise and fall of the tide in the open. There is little current except in the mouth of the inlet, where the pulsation takes place.

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RELATION OF THE MOON TO THE TIDE.

The influence of the moon on the tides takes place in three leading periods or months of different lengths:—(1) The well-known month of the moon's phases (synodic month) from new moon to new moon. (2) The month of the moon's distance (anomalistic month) from perigee to perigee. (3) The month of the moon's declination, north and south of the equator; the declination being another word for the same thing as latitude on the earth. Just as the sun crosses the equator twice in the course of the year and goes north in summer and south in winter, so the moon does in the course of the declination-month. There is thus a time in each month when the moon rises to a high latitude on the meridian; and it falls to a low meridian altitude half a month later. The three types of month above mentioned, has each its own special length, the first being the longest; and they therefore over-run each other.

The most important fact to note is that these various movements of the moon have not the same relative effect upon the tide in different regions of the world. As a rule, in any particular region, some one of these movements has so preponderating an effect that the influence of the other is obscured. Or, it may be that two of them have a nearly equal effect and the influence of the third is difficult to detect.

In the North Atlantic, the most marked feature of the tide is the variation from spring to neaps in accordance with the moon's phases. But to assume that this must be the leading feature everywhere in the world, and that for practical purposes all other influences may be ignored, is a mistake which has placed a serious obstacle in the way of the correct understanding of the tides generally. Even on the borders of the North Atlantic the springs and neaps are not always dominant; as in the Bay of Fundy, where the variation in the range of the tide with the moon's distance is distinctly greater than the variation from spring to neaps.

When the moon is at its extreme declination, north or south of the equator, its attraction is oblique to the plane of the earth's equator, which gives rise to diurnal inequality in the tide. Almost everywhere, there are a few days, twice in the month, when this inequality is quite noticeable. In some regions it may become very large, as in Northumberland strait, where the difference in range between the two tides of the day may be half as much again as the true difference between springs and neaps. On the Pacific coast, the moon's declination is the dominant element. In Fuca strait and the Strait of Georgia the resulting inequality becomes so developed that it obscures every other feature in the tide. When the moon is on the equator, the day and night tides are equal in range; but as the moon's declination increases, it gives rise to one pair of large tides, while the other two tides of the day are reduced to half tides. The time-interval from one tide to the next also becomes unequal. It is only when the moon is on the equator that successive high waters are equally spaced in time. After that, the intervals between them become shorter and longer alternately, until the moon reaches its maximum declination, when the intervals are the most unequal.

In regions where declination is thus the dominant element, the change in the declination of the sun during the course of the year, may have a greater effect than any other of the moon's own motions. There is accordingly a marked annual variation; as the largest tides, due to inequality, must occur when both the sun and the moon are north or south of the equator at the same time. Hence the extreme tides of the year occur at the moon's maximum declination which is nearest to the solstice, in summer and in winter.

The currents in the passes in British Columbia are affected in the same way as the tide itself. It is only when the moon is on the equator that the tidal streams in the two directions run for the same length of time and with the same strength. Otherwise they show an inequality which becomes greatest when the moon is at its maximum declination, when the long run and the short run become the most unequal. To show when this occurs, the dates at which the moon reaches its maximum, north and south of the equator, are indicated in all the tables of slack water.

It is thus evident that a truly average tide can only occur midway between springs and neaps, at a time when the moon is on the equator and also at its mean distance. Of all the variations from this average, the greatest by far occurs in regions where diurnal inequality is the dominant feature in the tide.

TERMS DESCRIPTIVE OF THE TIDE.

Range.—The difference of level between high and low water, or between low and high water, on any individual tide.

Technically speaking, this is the amplitude of the tidal undulation; or the elevation of the summit of the undulation above the trough. Its amount is independent of any datum from which heights are measured.

Rise.—The movement of the surface of the water vertically upward, from the low level of the tide to the high level. The amount of the rise is the actual difference of level, measured vertically from the low-water datum to high water, at any tide.

High and Low Water.—The time when the tide reaches its highest and lowest points, and the height of the tide when it turns, are the elements of most importance for marine purposes. It is therefore the time and the height of high water and low water at each tide, that are given in tide tables; as these define most adequately the vertical movement of the water.

Low-water datum.—A plane of reference established near the level to which the lowest low waters usually fall, and from which the height of the tide can be measured vertically upward, and the depth of the water vertically downward.

This is the datum used for tide tables, from which to measure the height of the tide. The same datum is used for marine charts, to show the least depth of water which mariners can count upon when the tide is low.

Set.—The set of a current is the direction towards which the movement carries a vessel. The direction is thus indicated in the opposite way to wind direction. For example, if the air is moving from west to east, it is termed a West wind; but if the water is moving from west to east, it is termed an Eastward set.

Flood and Ebb Streams.—The horizontal movement of the water, or flow, corresponding to the rise and fall of the tide.

Slack water.—When the flood stream ends and the ebb stream begins (or vice versa) there is a moment or a short interval of time when the water is motionless. This is termed Slack water; and as it occurs twice in the course of a complete tidal period, the two turns are distinguished as High-water slack at the end of the flood, and Lowwater slack at the end of the ebb.

Slack water is thus the time at which the horizontal motion is reversed, just as High water and Low water are the times at which the vertical motion is reversed. It must not be supposed that these coincide in time, however; as practically speaking, they never do. There are some conditions, indeed, which make Slack water occur near half tide, or midway in time between high water and low water.

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